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September 3, 2014

Errata

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th St. SW
Washington, DC 20554

Mr. Sanford Williams
Competition Policy Division
Wireline Competition Bureau
Federal Communications Commission
445 12th Street, SW, Room 5-C217
Washington, DC 20554

Re: *Telephone Number Portability, et al.*, CC Docket No. 95-116, WC Docket No. 09-109

Dear Ms. Dortch and Mr. Sanford:

On August 22, Telcordia Technologies, Inc., d/b/a iconectiv ("Telcordia") submitted Public, Confidential, Highly Confidential, and Critical-Infrastructure-redacted versions of its reply comments in the above-referenced proceeding. A software error in the redaction process caused certain footnotes in redacted portions of the documents to be inadvertently deleted, causing discrepancies among footnotes and pagination across different versions of the documents. These corrected versions replace in their entirety the versions that were filed on August 22, and restore identical footnotes and pagination to all four versions of the documents.

Sincerely yours

/s/ John R. Grimm

John R. Grimm
Counsel for Telcordia Technologies, Inc. d/b/a/ iconectiv

Attachments

REDACTED—FOR PUBLIC INSPECTION

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of:	
Petition of Telcordia Technologies, Inc. To Reform or Strike Amendment 70, To Institute a Competitive Bidding for Number Portability Administration, and To End the LLC's Interim Role in Number Portability Administration Contract Management	WC Docket No. 09-109
Telephone Number Portability	CC Docket No. 95-116

REPLY COMMENTS OF TELCORDIA TECHNOLOGIES, INC., D/B/A ICONECTIV

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August 22, 2014

TABLE OF CONTENTS

Introduction and Summary 1

Argument 11

I. Telcordia Has Satisfied the Commission's Neutrality Requirements as Implemented in the RFP. 11

A. The Legal Standard. 11

B. Telcordia Is Itself Neutral. 13

1. There Is No Rule Barring Affiliation with a Manufacturer of Telecommunications Equipment. 15

2. Telcordia's Parent Company Ericsson Is Not Subject to Undue Influence, and Even If It Were, the Proposed Safeguards Would Prevent Any Undue Influence on Telcordia. 19

3. Telcordia's Experience Providing LSMS/SOA Systems Does Not Present a Neutrality Problem. 34

C. Sungard AS Is Neutral and Is, in any Case, Not Subject to the Three-Prong Neutrality Analysis. 36

1. As a Hardware/Software Provider, Sungard AS Is Not Subject to the Three-Prong Neutrality Analysis. 36

2. Sungard AS Is Neutral. 37

D. If the FCC Desires Additional Safeguards, They Can Be Implemented Without Re-Opening the Competition. 45

1. Additional Neutrality Measures May Be Implemented at Any Time Between the Award and the Contract Start Date. 46

2. Allowing the Awardee to Address any Neutrality Concerns Without Re-Opening the Competition Is Entirely Consistent with Analogous Federal Procurement Practice. 48

II. A Notice of Proposed Rulemaking Is Not Required, and the Commission Has Offered More than Sufficient Opportunities for Public Participation. 51

A. The Selection of the LNPA Is an Adjudicative Function. 51

B. The Commission Has Not Fixed the Identity of the LNPA in a Rule. 56

C. The Public Has Had Ample Opportunity to Comment on These Proceedings and the Public Notice Is Sufficient. 60

III. The Commission Can and Should Rely on the NANC Recommendation, Which Was the Result of a Selection Process Supported by Neustar, Approved by the Commission, and Properly Executed by the FoNPAC and the NANC. 61

A. The Selection Process Was Supported by Neustar and Approved by the Commission. 62

1. Neustar Had the Opportunity to Raise Any Objections to the LNPA Process. 63

2. Neustar Waived Any Objections to the RFP Process. 65

B. The Selection Process Was Administered Fairly and Appropriately.....69

1. The Decision to Extend the Deadline for Proposal Submission Was Reasonable and Caused No Prejudice to Neustar. 70

2. The Decision Not to Solicit Second BAFOs Was Reasonable and Caused No Prejudice to Neustar. 75

C. The Selection Reports Appropriately Explain the Justification for the NANC's Recommendation. 86

1. The Recommendation Properly Addresses Pricing. 86

2. The Recommendation Appropriately Considered Transition Costs. 90

3. The Recommendation Properly Addresses the LNPA Transition, Quality of Service and the IP Transition.....93

D. Reliance on the Selection Reports Does Not Create a Delegation Problem. 100

E. The Commission May and Should Give the NANC Recommendation Substantial Weight. 103

IV. Neustar's Cries of Alarm over Telcordia's Transition Plan Are, In Reality, Nothing More than a Continuation of Its Tired Fear-Mongering Campaign.....106

A. The NANC and NAPM Were Not Ignorant of the Transition Risks that Neustar Presents Again Here. 107

B. The Procurement Documents Substantially Reduced the Scope of Any Transition by Not Making Any Changes in System Specifications or Data Fields, and by Requiring that the Next LNPA Use Existing Interface Specifications. 109

C. The July 2015 Deadline Is a Red Herring Because the Transition Period Is a Management Issue that Will Be Addressed by the Industry and the Prevailing Bidder Post-Selection. 113

D. Telcordia's Transition Plan Is Appropriate for the Selection-Process Stage....115

1. Neustar's Argument That Telcordia Has Not Addressed Industry Coordination Ignores Its Own Obligations to Cooperate With the Transition. 116

2. Telcordia's Turnup Will Not Be Haphazard....117

3. Neustar's Warning About a Potential Rollback Crisis Is a Continuation of its Fear-Mongering Campaign. 117

V. TELCORDIA HAS A ROBUST SECURITY PLAN THAT CAN BE FURTHER REFINED THROUGH THE POST-AWARD IMPLEMENTATION PROCESS. 118

A. Neustar Has No Right to Recompete Over Security....120

1. Neustar Waived Its Challenges to the RFP's Security Provisions....120

2. Post-Award, NAPM May Modify the Contract to Address Evolving Security Needs Without Reopening the Competition. 121

B. Telcordia's Bid and Plans, Its Experience With U.S. National Security Protections, and Its International Experience All Demonstrate Its Ability to Develop and Implement a Highly Secure NPAC. 123

1. Telcordia Has Substantial Experience in Operating Reliable and Secure Databases 124

2. Telcordia Is Ready, Willing, and Able to Meet All Security Needs....126

3. Many of the Security "Issues" Raised by Neustar Are Simply Wrong on the Facts. 130

C. Telcordia Is Already Consulting With National Security and Law-Enforcement Agencies to Address Post-Selection Implementation Issues....139

Conclusion 141

EXHIBITS

Declaration of Travis Baker ..... Exhibit A

Eric Burger, *Issues and Analysis of a Provider Transition for the NPAC*, S^2ERC TECHNICAL REPORT (July 22, 2014) ..... Exhibit B

Exhibit C: Report of Deloitte Consulting, LLP (Aug. 8, 2014) ..... Exhibit C

INTRODUCTION AND SUMMARY

The comments demonstrate that the Commission, guided by the unanimous recommendation of its longstanding, expert, and balanced numbering advisory committee, the North American Numbering Council ("NANC"), should now designate Telcordia Technologies Inc., d/b/a iconectiv, as the Local Number Portability Administrator ("LNPA") beginning July 1, 2015. As two of the industry's largest associations with members with substantial stakes both in the smooth operation and cost of local number portability, the United States Telecom Association ("USTA") and CTIA—The Wireless Association ("CTIA"), point out, "This overwhelming consensus speaks for itself: NANC's recommendation to the FCC reflected the support of virtually all concerned industry and public stakeholders, including local exchange carriers, interexchange carriers, wireless providers, manufacturers, state regulators, consumer interests, and telecommunications associations."[1] The NANC's recommendation "has the overwhelming support of those who will use and rely upon the LNPA and the NPAC/SMS over the life of the next LNPA contract and who undertook to contribute to the remarkably open vendor-selection process."[2]

It is also abundantly clear that the members of the NANC, the North American Portability Management LLC ("NAPM"), and their expert working groups—respectively, the Local Number Portability Selection Working Group ("SWG") and the Future of the Number Portability Administration Center Subcommittee ("FoNPAC")—concluded that Telcordia could

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[1] Comments of CTIA—The Rural Wireless Association and the United States Telecom Association at 16, WC Docket No. 09-109 and CC Docket No. 95-116 (filed July 25, 2014) ("USTA/CTIA Comments").

[2] *Id*.

do the job from a technical and managerial perspective. These groups did not ignore technical merit and quality in favor of price, as Neustar insinuates, but they "undertook a painstakingly diligent and comprehensive review."[3] They expended enormous time and resources, including "technical, engineering, operational and other substantive expertise."[4] They conducted "hundreds of meetings and thousands of hours of review, analysis, evaluation and consultation."[5] The NANC and NAPM did not take their advisory roles lightly.

Moreover, as USTA and CTIA—representing both wireline and wireless carriers—also point out, "Adoption of the NANC recommendation holds the promise of drastically reducing" LNPA costs borne by the industry and by "the consumers who ultimately pay the hundreds of millions of dollars per year that this service currently costs."[6] Over the course of the next contract, including its option years, the NANC and NAPM expert working groups concluded that the difference in cost to industry and consumers ****BEGIN HIGHLY CONFIDENTIAL****

[redacted]

[redacted] ****END HIGHLY CONFIDENTIAL****

Neustar argues that nonetheless the Commission must turn aside NANC's recommendation and select it as the LNPA because Telcordia is not neutral and thus is not qualified. This is not correct: as USTA and CTIA explain, "Telcordia has demonstrated that it

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[3] *Id*. at 2.

[4] *Id*. at 15.

[5] *Id*. at 15.

[6] *Id*. at 2.

meets the first two prongs" of the Commission's three-prong neutrality analysis, and it "also took numerous steps to ensure that it meets the third ('no influence') prong. . . ."[7] Neustar argues that affiliates of a telecommunications equipment manufacturer are barred by rule from serving as the LNPA.[8] That is simply wrong as a matter of law. Neustar then argues that Telcordia cannot be neutral—*i.e.*, that it will be subject to undue influence—because it is owned by Ericsson, which also provides managed services to some carriers and sells wireless network equipment. On this point, the lack of protest from any significant set of stakeholders speaks volumes. The NANC is comprised of large and small incumbent LECs, mobile wireless carriers, cable companies, CLECs, over-the-top VoIP providers, state regulators and state consumer advocates. None of those entities has commented that, notwithstanding NANC's recommendation, they do not believe that Telcordia would be an impartial administrator. Even the one industry commenter that raises neutrality concerns, the self-proclaimed LNPA Alliance, does not provide specifics as to how, in 2014, with a highly specified number portability system, with requirements changed only after an open process conducted by the NANC's LNPA Selection Working Group ("SWG"), and with regular outside neutrality audits of compliance with a code of conduct that bars discrimination, that untoward discrimination would still manifest itself. Discriminatory actions by Telcordia would be suicide—for itself and for Ericsson, which has a brand dependent upon its ability to serve competing entities. The Commission is not obligated by statute or its

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[7] Reply Comments of CTIA—The Wireless Association and the United States Telecom Association at 11, WC Docket No. 09-109 and CC Docket No. 95-116 (filed Aug. 8, 2014) ("USTA/CTIA Reply Comments").

[8] Comments of Neustar, Inc. at 33-34, WC Docket No. 09-109 and CC Docket No. 95-116 (filed July 25, 2014) ("Neustar Comments"). All citations are to the Highly Confidential version of the Neustar Comments.

rules to be hostage to such rank, unfounded speculation. In any event, Telcordia will adopt such further safeguards as the Commission deems necessary, as was reflected in its bid documents.

Nor does Telcordia's data center contractor, Sungard Availability Systems ("Sungard AS"), disqualify Telcordia on neutrality grounds from serving as the LNPA. Even if the bar on being an affiliate of a telecommunications carrier or interconnected VoIP provider were applicable to a subcontractor (which it is not), Sungard AS is not a telecommunications carrier or an affiliate of a telecommunications carrier or interconnected VoIP provider. Claims that Sungard AS would subject Telcordia to undue influence are also speculative and, from a practical perspective, impossible. In the first instance, Sungard AS's role is to supply, house, and maintain the servers and underlying database software for the NPAC. Sungard AS neither inputs data into the NPAC, nor takes other telecommunications industry-facing actions. In addition, to the extent that some of Sungard AS's owners—none of which individually controls Sungard AS—have investments in telecommunications carriers or interconnected VoIP providers, Sungard AS could not execute discriminatory conduct in favor of one of those telecommunications carriers/interconnected VoIP providers without violating its fiduciary duties to its other owners. Again, the Commission is not obligated to be hostage to rank, unfounded speculation.

Neustar's other objections are also meritless. The Commission's selection process—which Neustar endorsed as recently as January 2013[9]—does not require a rulemaking to select the next LNPA. Neustar's argument that the Commission is required to proceed by rulemaking

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[9] *See* Letter from Aaron M. Panner, Counsel for Neustar, Inc., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 95-116, WC Docket Nos. 07-149 and 09-109 (filed Jan. 11, 2013) ("Neustar Jan. 11, 2013 Letter").

because in 1997 it appointed Neustar as an LNPA in an order that also adopted rules is simply wrong. The Commission can adopt rules and make adjudications in the same order, which is what it did in 1997. Neustar's interpretation of the 1997 Order as adopting a rule designating it as the LNPA is not supported by the text of the rules actually adopted nor is it compelled by the text of the order; and it would lead to an inflexible and impractical result. The Commission can reasonably conclude that it is permitted to select the LNPA through an adjudication.

Nor did the Bureau, the NANC or the NAPM run an unfair or flawed procurement process. To the contrary, the process was remarkably open, with public comment at every critical stage—defining the process, formulating the procurement documents (Request for Proposals, Technical Requirements Document and Vendor Qualifications Statement), and making final selection. The decisions taken at each stage were reasonable and considered. Neustar complains now that it did not get the results that it wanted at some points, but it did not suffer any prejudice.

Neustar also incorrectly argues that the NANC recommendation, and its supporting reports, are too sparse to be accorded weight by the Commission, and that were the Commission to do so, it would have impermissibly delegated selection authority to the NANC. Neustar's delegation arguments are a redherring. There has been no delegation of final authority to the NANC; the Commission has always retained final authority as to LNPA selection.

Moreover, the NANC report is not so bare as to make it unreasonable for the Commission to rely on its conclusions and recommendations, as Neustar suggests. In the first instance, as it weighs the competing bids, the Commission reasonably can consider that:

- The NANC is its longstanding and balanced industry advisory committee on numbering issues,

- The NANC and its subgroups are intimately involved in the administration of number portability,
- The NANC and its subgroups, with Commission oversight, define the local number portability requirements and processes,
- The NANC and NAPM members have expertise in number portability,
- The NANC and NAPM members have a major stake in the reliable operation of the NPAC/SMS,
- The NANC and NAPM industry members compete with one another vigorously, and thus have a substantial interest in impartial local number portability administration,
- The NANC and NAPM members will bear the substantial majority of the direct and indirect costs of the next LNPA, including the costs and risks of transitioning to a new LNPA, and
- The NANC and NAPM members invested significant time and resources in evaluating the competing bids.

Neustar would have the Commission ignore all of this, but the Commission is not compelled to do so. In fact, it would be arbitrary and capricious for the Commission to do so. In any event, the NANC's reports clearly indicate that the NAPM's FoNPAC subcommittee ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Similarly, the SWG Report ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Moreover, both reports make clear that both the FoNPAC and SWG gave substantial consideration to ****BEGIN CONFIDENTIAL**** [redacted]

[redacted] ****END CONFIDENTIAL**** In weighing Neustar's claims—based on studies that compare an LNPA transition to very different and disparate systems conversions—that an LNPA transition will be extremely costly and difficult, the Commission can reasonably consider the conclusions drawn by industry experts with day-to-day experience using the NPAC/SMS. The fact that the transition itself still has details to be worked out is unremarkable given that this is the selection phase, not the implementation phase. These details will necessarily be hammered out cooperatively and collaboratively between the next LNPA and the industry as implementation proceeds; neither Telcordia (which does not get paid until it has its system actually in service) nor the industry has an interest in a failed transition. Moreover, even if the NAPM elects to invoke its right to an extension of the current contract in order to provide a longer period for a transition, ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

Moreover, Neustar's comparisons to problem-plagued information technology transitions such as healthcare.gov or the United/Continental and Verizon/Fairpoint mergers are inapposite. In putting together the RFP, the NANC and NAPM expert working groups included provisions that greatly streamlined the transition. Significantly, there are no changes in systems requirements that accompany this transition. Data would be migrated from one LNPA's database to another's. The database fields are already specified in detail through the work of the NANC and its LNPA Working Group, with those changes documented in publicly available documents by Neustar. Furthermore, the RFP specified that the interfaces between the NPAC/SMS and carrier gateways will not change. While there will, of course, be testing,

carriers or their service bureaus should not have to change their systems beyond connecting to the new LNPA. Telcordia's bid met these requirements.

Neustar also argues that the Commission cannot now move to selection because the procurement documents failed to include critical factors in sufficient detail, including law enforcement access and the IP Transition. In the first instance, Neustar waived these objections long ago, when it endorsed the RFP. As the incumbent LNPA in the best position to know what technical issues should be considered, it was particularly important for Neustar to raise any deficiencies in the procurement documents. To allow Neustar to do so now as a "get out of jail free" card for its failed bidding strategy would reward Neustar for not coming forward during the comment period on the RFP. There is no reason for the Commission to do that.

In any event, the RFP appropriately dealt with both law enforcement access and the IP transition. Whomever the LNPA is will have to provide law enforcement support, which is what Section 11.2 set forth with 21 separate requirements. Among other things, the RFP requires that law enforcement be provided access through authenticated, secure and encrypted means. Similarly, it was not—and still is not—possible for the RFP to specify how the NPAC should function in an all-IP environment because the industry has not yet reached a consensus as to how IP routing should be structured. The RFP reasonably addressed this issue, and thus the selection process has as well.

Finally, in a last-ditch effort to retain its contract, Neustar asks the Commission to discard the results of the current bidding and allow it to submit a new bid under the theory that "[t]he selection of an LNPA implicates serious national-security issues that were not addressed in the RFP process" and that the Commission should allow "candidates to compete on the relative

security of their proposed systems."[10] As with Neustar's other objections to the RFP, it long ago waived these provisions by raising none of them when the Bureau solicited comment on the RFP. Neustar is not entitled to re-competition. Similarly, the RFP did not overlook any security-related legal requirements. Thus, the RFP was not legally deficient.

Substantively, in response to the RFP, Telcordia proposed robust security protections, consistent with its extensive experience in the U.S. operating sensitive and critical systems, as well as its experience operating in other countries. Telcordia has long been at the center of telecommunications routing, dating back to the days of the integrated Bell System. Telcordia operates the Local Exchange Routing Guide ("LERG") and Business Integrated Routing and Rating Database System ("BIRRDS") and provide telecommunications infrastructure support through the Common Language database, all of which must be protected against cyberattacks and for which business continuity needs to be maintained. Moreover, to extent the concern is some kind of vulnerability because of Ericsson's ownership, Ericsson Inc. itself is represented on the National Security Telecommunications Advisory Committee. Moreover, ****BEGIN CRITICAL INFRASTRUCTURE** **BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL** **END CRITICAL INFRASTRUCTURE****

Moreover, it bears emphasis that many of Neustar's newly invented security concerns—which it has touted to the press—are meritless. Specifically:

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[10] Neustar Comments at 102.

- Telcordia cannot, under the RFP, integrate the NPAC/SMS with Ericsson's BSS/OSS products. Were Ericsson's BSS/OSS products to interact with the NPAC/SMS, they would have to do so in the same manner as any other user. This could not create a "back door" to invade the NPAC/SMS.
- Telcordia is not re-using foreign code. Telcordia is creating entirely new code for the U.S. Number Portability Administration Center/Service Management System ("NPAC/SMS") that underlies the LNPA operation. Telcordia is not contracting for its NPAC/SMS code development from non-U.S. sources.
- As required by the RFP, all NPAC/SMS user data will be stored in the U.S.
- Telcordia has never planned on retaining Enhanced Platform for Law Enforcement Agencies and Public Safety Answering Point Providers ("Enhanced Law Enforcement Platform" or "ELEP") queries. Telecommunications providers are required to keep records of requests for law enforcement access, but Telcordia is not required to keep records of the queries performed by law enforcement through the ELEP. Telcordia also has no reason to and will not monitor those queries.
- The RFP did not ignore ELEP, and includes security related requirements for the ELEP. As the RFP also reflects, ELEP requires a separate agreement between the NPAC/SMS operator and law enforcement. Further security issues related to ELEP can and should be addressed in the contracting process. ELEP can also be fully tested as part of the overall transition testing process.

Telcordia has a strong commitment to building and operating a safe, secure and reliable NPAC/SMS. Any remaining security concerns, to the extent that they are shared by Executive

Branch agencies, can and should be addressed through post-selection mitigation discussions with those agencies, with selection conditioned upon providing adequate assurances. Proceeding in this manner would allow the Commission to ensure that national security concerns are fully safeguarded, while allowing the construction and testing of the new NPAC/SMS to proceed.

Accordingly, Neustar has raised no sufficient reason for the Commission, in exercising its independent review and judgment, to reject NANC's recommendation to select Telcordia as the next LNPA. The Commission should promptly designate Telcordia as the next LNPA so that Telcordia and the industry can move forward quickly with necessary contract negotiation, implementation, and testing.

ARGUMENT

I. TELCORDIA HAS SATISFIED THE COMMISSION'S NEUTRALITY REQUIREMENTS AS IMPLEMENTED IN THE RFP.

A. The Legal Standard.

The Telecommunications Act of 1996 ("the Act"), as implemented by the Commission, requires the administrator of Local Number Portability to be neutral. The Act directs the Commission to "create or designate one or more impartial entities" to administer numbering.[11] The Commission has interpreted this directive to require that the LNPA should be "an independent, non-governmental entity, not aligned with any particular telecommunications industry segment, whose duties are determined by the NANC."[12]

In applying this neutrality standard, the NAPM, the NANC, and the Commission look to the neutrality requirements applicable to the North American Numbering Plan Administrator

[11] 47 U.S.C. § 251(e)(1).

[12] 47 C.F.R. § 52.21(k).

("NANPA"), codified at 47 C.F.R. § 52.12(a), which have previously been construed by the Commission. Indeed, the bid documents both specifically incorporate and summarize the three core neutrality requirements of Section 52.12(a).[13]

Section 52.12(a) enumerates three criteria that the Commission considers to evaluate whether a particular entity is neutral. *First*, the LNPA may not be a telecommunications services provider or an affiliate of such a provider.[14] *Second*, the LNPA and any affiliates "may not issue a majority of its debt to, nor may it derive a majority of its revenues from, any telecommunications service provider."[15] *Third*, the LNPA must not be "subject to undue influence by parties with a vested interest in the outcome of numbering administration and activities."[16]

The Commission has made clear that while the first two criteria must be considered, the touchstone of the neutrality analysis is the third criterion. Indeed, the Commission has stated that, even if a potential NANPA "does not satisfy the neutrality criteria stated in sections 52.12(a)(1) and (2), the Commission nonetheless may find that the NANPA is neutral and not subject to undue influence by parties with a vested interest in the outcome of numbering administration and activit[i]es."[17] Specifically, even an entity that does not fully meet one of the

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[13] NAPM, LLC 2015 LNPA VQS § 3.4 ("VQS"), *available at* https://www.napmllc.org/Docs/npac/ref_docs/2015%20LNPA%20Vendor%20Qualification%202%204%2013.docx (last accessed Aug. 7, 2014).

[14] 47 C.F.R. § 52.12(a)(1)(i); VQS § 3.4(1).

[15] 47 C.F.R. § 52.12(a)(1)(ii); VQS § 3.4(2).

[16] 47 C.F.R. § 52.12(a)(1)(iii); VQS § 3.4(3).

[17] *Administration of the North American Numbering Plan; Toll Free Service Access Codes*, Third Report and Order and Third Report and Order, FCC 97-372, 12 FCC Rcd. 23,040, 23,081 ¶ 81 (1997) ("*NANP Administration Third Report and Order*").

first two criteria can nevertheless qualify as "neutral" so long as the Commission finds that the violation is *de minimis* and the entity satisfies the undue-influence criterion.[18] As a result, the Commission has emphasized that the third criterion "affords us broad discretion to determine whether the entity is subject to undue influence by parties with a vested interest in the outcome of numbering administration."[19]

B. Telcordia Is Itself Neutral.

The Commission has repeatedly held that the neutrality requirements explained above apply to the entity that will administer numbering—not to its parent or affiliates.[20] Contrary to this principle, Neustar's opening comments uniformly refer to Telcordia by the name of its parent company—Ericsson—in an apparent effort to create confusion over which entity will serve as LNPA and which entity is subject to the neutrality analysis.[21] Neustar spends much of its brief arguing that "Ericsson cannot satisfy the requirements, set forth in the Commission's

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[18] *Id.* at 23,080-81 ¶¶ 78-81; *see also Request of Lockheed Martin Corporation and Warburg, Pincus & Co. for Review of the Transfer of the Lockheed Martin Communications Industry Services Business*, Order, FCC 99-346, 14 FCC Rcd. 19,792, 19,795 ¶ 4 (1999) ("*Warburg, Pincus Transfer Order*") (noting that Lockheed Martin was an affiliate of a telecommunications services provider but concluding that Lockheed was nevertheless neutral because its financial stake in that provider was "small relative to Lockheed's overall assets" and because it had met the undue-influence criterion).

[19] *Warburg, Pincus Transfer Order*, 14 FCC Rcd. at 19,808 ¶ 24.

[20] *See, e.g.*, *id*., 14 FCC Rcd. at 19,806 ¶ 21 ("In this instance, however, it is NeuStar, not Warburg, that is subject to compliance with our neutrality requirements."); *id.* at 19,810 ¶ 30.

[21] *See, e.g.*, Neustar Comments at 20 ("Were Ericsson to be named as LNPA, carriers that lack a managed services relationship with Ericsson would justifiably suspect that favored competitors were gaining an advantage . . . .") Of course, it is *Telcordia* that has been recommended to be the next LNPA, while it is *Ericsson* that has certain Managed Services Agreements.

rules, that the LNPA be a 'neutral third part[y]' . . . ."[22] But, while Telcordia believes that Ericsson is neutral for the reasons stated in the opinion letter,[23] that is not, as a matter of law, the relevant question. It is Telcordia—not Ericsson—that has been recommended to be the next LNPA, and it is Telcordia that is subject to the Commission's neutrality analysis.

On the issue of *Telcordia*'s neutrality, Neustar has very little to say.[24] Neustar does not—and cannot—dispute that Telcordia meets the first two prongs of the neutrality analysis. As explained in the opinion letter[25] that Telcordia submitted with its bid, Telcordia is not a Telecommunications Services Provider ("TSP") or an Interconnected VoIP Provider ("IVP") and has none of the corporate or contractual relationships with a TSP or an IVP that are covered by the first two prongs of the neutrality analysis. Nor does Neustar argue that Telcorda is directly subject to undue influence by a TSP or an IVP.

Rather, Neustar argues *first*, that Telcordia cannot be the LNPA because Ericsson is a telecommunications equipment manufacturer—a prohibition found nowhere in the Commission's rules. *Second*, Neustar argues that Telcordia cannot be the LNPA under the undue-influence prong of the Commission's neutrality criteria because, it says, Ericsson is subject to undue influence by entities with whom one of its subsidiaries[26] has entered Managed

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[22] *Id*. at 21.

[23] Telcordia Bid, Vendor Qualification Section ("VQS"), Attachment to Question 3.5 at 10-13 (Telcordia06083-Telcordia06086).

[24] *See* Neustar Comments at 23, 33-34.

[25] Telcordia Bid, VQS, Attachment to Question 3.5 at 1-17 (Telcordia06074-Telcordia06090).

[26] Telcordia Technologies, Inc., is an indirect wholly owned subsidiary of Ericsson Holding II Inc., which is a wholly owned subsidiary of Telefonaktiebolaget LM Ericsson. Ericsson Holding II is also the parent company of Ericsson Inc. It is Ericsson Inc. that has entered into

Services Agreements ("MSAs"), some of which are telecommunications providers. Neustar does not suggest that Telcordia is subject to undue influence from these entities directly but rather that Ericsson is subject to such influence and will in turn unduly influence Telcordia.

These arguments defy reality. Telcordia already provides products and services that require absolute neutrality. For example, it provides routing information relied upon by nearly every Public Switched Telephone Network-connected telecommunications provider—whether wireline, wireless or VoIP—through the LERG Routing Guide and the BIRRDS and provides telecommunications infrastructure support through the Common Language database. If its relationship with Ericsson prevented Telcordia from acting neutrally, this would already have manifested itself in the way Telcordia provides these other products and services. Indeed, if Ericsson were bent on using Telcordia to favor some carriers over others and were able to influence Telcordia to do so, as Neustar suggests, routing guides such as the LERG would be a much more potent tool in that they could affect *all* carriers' routing of traffic to a carrier, rather than just the routing of traffic for incremental ported customers. And yet there is no question that Telcordia administers the LERG—and each of its other products—neutrally. Just as it has done with its other products and services, Telcordia will administer the NPAC neutrally.

1. There Is No Rule Barring Affiliation with a Manufacturer of Telecommunications Equipment.

Neustar first argues that the Commission has adopted a categorical bar prohibiting the LNPA from being the affiliate of any manufacturer of telecommunications equipment. But there

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the MSAs at issue here. References to "Ericsson" in this document are generally to LM Ericsson unless otherwise noted.

is no such rule.[27] The LNPA's lone neutrality requirement appears in the Code of Federal Regulations at 47 C.F.R. § 52.21(k), which requires only that the LNPA be "an independent, non-governmental entity, not aligned with any particular telecommunications industry segment, whose duties are determined by the NANC."[28]

The language quoted by Neustar appears *not* in the Code but in Section 4.2.2 of the Selection Working Group's April 25, 1997 report to the NANC ("1997 SWG Report"). Neustar claims that this language was incorporated into the Commission's rules by 47 C.F.R. § 52.26(a), which requires local number portability administration to "comply with the *recommendations*" of the 1997 SWG Report.[29] But the language quoted by Neustar does not appear in any of the recommendations of the report. Indeed, the 1997 SWG Report recommended that the NANC adopt the LNPA selection criteria set forth in Section 4.1.1.[30] And the Commission, in the *Second Report and Order*, specifically quoted Section 4.1.1 as the criteria the "NANC concluded should govern the selection of a local number portability database administrator."[31] Nothing in

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[27] *See* Letter from John T. Nakahata *et al.*, Counsel to Telcordia, to Marlene Dortch, Secretary, FCC, CC Docket No. 95-116, WC Docket Nos. 07-149 and 09-109 (filed May 9, 2014).

[28] 47 C.F.R. § 52.21(k).

[29] 47 C.F.R. § 52.26(a) (emphasis added).

[30] North American Numbering Council, LNPA Selection Working Group, Report § 4.1.1 (Apr. 25, 1997), *available at* https://www.npac.com/content/download/10717/104218/NANC%20LNPA%20Selection%20Working%20Group%204-25-97%20-DOC-272978A1%20(2).doc (last accessed Aug. 7, 2014) ("1997 SWG Report").

[31] *Telephone Number Portability*, Second Report and Order, FCC 97-289, 12 FCC Rcd. 12,281, 12,301 ¶ 29 (1997) ("*Second Report and Order*"). Section 4.1.1 of the 1997 SWG Report stated:

> The Telecommunications Act of 1996 and the FCC's July 2, 1996 LNP Order established mandatory criteria (Criteria, individually Criterion) for the selection of the LNPA and all related activities. Central among these Criteria are competitive neutrality, which is a

Section 4.1.1 recommends banning affiliates of a telecommunications equipment manufacturer. Section 4.2.2, by contrast, was not recognized or discussed by the Commission as a NANC recommendation or as NANC-recommended criterion in 1997 and has not been added to any legislative rule since then. Rather, Section 4.2.2 by its terms is part of a historical recitation of the terms that had been included in the RFP issued by the Mid-Atlantic Region limited liability company, the mid-Atlantic area's predecessor to NAPM.[32] While the NANC concluded that the criteria used by the regional LLCs "met basic criteria for neutrality," it never stated or recommended that those particular specifications constituted the minimum requirements for neutrality.[33] Thus, Section 4.2.2 does not establish mandatory neutrality criteria that would then be incorporated by reference into 47 C.F.R. § 52.26(a).

The NANC/NAPM LLC Consensus Proposal further confirms that the particular language quoted by Neustar was never codified in a rule. In that proposal—which was supported by Neustar[34] and adopted by the Commission—the NANC and NAPM summarized the neutrality

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requirement for the third party LNPA itself (LNP Order, ¶93), the LNPA's administrative activities (LNP Order, ¶92), and the manner by which LNPA costs are borne by telecommunications carriers (1996 Act, §251(e)(2)). Additional significant Criteria that apply to the LNPA selection process include: (1) equal and open access to LNP databases and numbers (1996 Act, §251(e)(1) and LNP Order, ¶98)); (2) uniformity in the provision of LNP data (LNP Order, ¶91); (3) cost effective implementation of LNP (LNP Order, ¶¶91, 93, 95); (4) consistency in LNPA administration (LNP Order, ¶93); (5) LNPA compliance with NANC-determined technical and functional proficiency standards (LNPA Order, ¶¶95, 99); and (6) regionalized LNPA deployment within the FCC deployment schedule (LNP Order, ¶91 and Appendix F).

[32] *See* 1997 SWG Report § 4.2.2.

[33] *Id.* § 6.2.3.

[34] *See* Letter from Aaron M. Panner, Counsel for Neustar, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 95-116, WC Docket Nos. 07-149 and 09-109 (filed Mar. 9, 2012) ("In addition, we briefly discussed the LNPA RFP process. We stated that Neustar supports the consensus process and would like to see it go forward without delay."); *see also* Reply

requirement that the Commission has imposed: "'competitive neutrality,' meaning that local number portability database administrators must be unaligned with any industry segment and that local number portability database administrators must treat competing users of their services impartially with respect to costs, terms, and conditions."[35] The Consensus Proposal referred to the criteria recited in Paragraph 29 of the *Second Report and Order* and Section 4.1.1 of the 1997 SWG Report and did not suggest that the historical recitation from Section 4.2.2 had ever been incorporated into the Commission's rules. If Neustar believed otherwise it should have objected to the proposal when it had the opportunity.

Moreover, it bears emphasis that the Bureau approved the procurement documents prepared by the NANC and NAPM without including the neutrality language quoted by Neustar in the solicitation documents, even after Neustar pointed out the historical use of such a preclusion in the 1997 RFPs. In August 2012, the Commission released the proposed Request for Proposal ("RFP"), Vendor Qualification Survey ("VQS"), and Technical Requirements Documents ("TRD") (collectively "procurement documents" or "RFP documents") for notice and comment.[36] The VQS specifically delineated the neutrality criteria for the next LNPA and

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Comments of Neustar, Inc. at 2 & n.6, WC Docket No. 09-109 and CC Docket No. 95-116 (filed Mar. 29, 2011) (stating that Neustar "intends to participate in the LNPA selection process set out in the Consensus Proposal" and that "Neustar agrees with the Bureau that the Consensus Proposal is 'consistent with prior delegations of authority and Commission rules regarding the LNPA selection.'" (citation omitted)).

[35] *Petition of Telcordia Technologies Inc. to Reform Or Strike Amendment 70, to Institute Competitive Bidding for Number Portability Administration and to End the NAPM LLC's Interim Role in Number Portability Administration Contract; Telephone Number Portability*, Order and Request for Comment, DA 11-454, 26 FCC Rcd. 3685, 3695, Attach. A (2011).

[36] *Wireline Competition Bureau Seeks Comment on Procurement Documents for the Local Number Portability (LNP) Administration Contract, Pleading Cycle Established*, Public

required each bidder to submit a neutrality opinion letter.[37] During a discussion on the proposed neutrality requirements, Neustar informed the Commission that "manufacturer[s] of telecommunications network equipment….were specifically disqualified from the original 1997 LNPA bidding process."[38] But the Commission chose not to include this prohibition in its neutrality requirements. And Neustar, by failing to request the inclusion of this language in the final VQS and urging the Commission to accept the documents as written, has no lawful right to argue for a new rule now.[39]

2. Telcordia's Parent Company Ericsson Is Not Subject to Undue Influence, and Even If It Were, the Proposed Safeguards Would Prevent Any Undue Influence on Telcordia.

a. Neustar's Manufactured Concerns of Bias Do Not Comport with Reality.

Neustar next argues that Telcordia is subject to undue influence because its corporate parent owns another company, Ericsson Inc., that has entered MSAs with wireless providers and because it is a manufacturer of telecommunications equipment. Neustar claims that because of its subsidiary's "close relationship with Sprint and T-Mobile,"[40] Ericsson would have an

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Notice, DA 12-1333, 27 FCC Rcd. 11,771 (Wireline Comp. Bur. 2012) ("2012 *Procurement Documents Public Notice*").

[37] *Id.* at 11,941-43, VQS §§ 3.4-3.5.

[38] Letter from Aaron M. Panner, Counsel for Neustar, to Marlene Dortch, Secretary, FCC at 3, CC Docket No. 95-116, WC Docket Nos. 07-149 and 09-109 (filed Sept. 11, 2012) ("Neustar Sept. 11, 2012 Letter").

[39] *Id.* at 2 ("The neutrality requirements in the *RFP Documents* are rooted in the statute and the Commission's regulations, including the rules that apply to the North American Numbering Plan Administrator ('NANPA') and the Pooling Administrator ('PA').") (emphasis in original).

[40] Neustar Comments at 20.

incentive to favor those two entities over other carriers and would attempt to influence Telcordia to do so. Neustar further claims that carriers other than Sprint and T-Mobile would be hesitant to trust Telcordia with their sensitive business information.[41]

Neustar's trumped-up concerns are baseless. The NANC, whose membership is required to be balanced and includes representatives of numerous carriers—large and small—across all segments,[42] unanimously recommended Telcordia as the next LNPA. This includes carriers such as AT&T and Verizon that directly compete nationally with T-Mobile and Sprint. It also includes wireline carriers, cable VoIP providers and over-the-top VoIP providers. The RFP indicated that the NAPM (and by extension the NANC) would initially determine whether bidders met the neutrality requirement,[43] and nothing in the FoNPAC or SWG report suggests that any member of those bodies questioned Telcordia's neutrality. If the concerns were legitimate and realistic, surely some member of the FoNPAC or NANC would have objected. None did.

Moreover, Neustar's allegations of bias make no sense. Ericsson provides equipment and services to a wide variety of different providers—many of which are competitors—across

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[41] *Id.*

[42] 41 C.F.R. §102-3.30(c) ("An advisory committee must be fairly balanced in its membership in terms of the points of view represented and the functions to be performed.") Indeed, the NANC's membership includes representatives of large and small ILECs, CLECs (including Bandwidth.com, Level 3 and XO—all of which provide telephone numbers and manage porting for smaller providers—and, CompTel, the trade association representing CLECs), wireless providers, cable VoIP providers, and over-the-top VoIP providers (including Vonage, which has trialed direct assignment of numbers rather than through a CLEC).

[43] VQS § 3.5.

telecommunications industry segments.[44] As a result, it would not be possible for a single provider to exercise undue influence over Ericsson at the expense of other providers—discriminating in favor of one customer would damage Ericsson's business relationships with other customers. This is particularly true in the context of Ericsson Inc.'s MSAs, under which Ericsson serves multiple companies, some of which are competitors. As a result, Ericsson Inc.'s MSA customers demand that it act with the utmost neutrality—including by maintaining the confidentiality of their data and by implementing strict firewalls between the parts of the company that administer one MSA and the parts that administer another.[45] That idea is consistent with the Commission's prior precedent, which has recognized that influence by "a broad group" of telecommunications providers "that might include disparate TSP interests may well promote, and not undermine, neutrality."[46]

Nor would it make sense for Ericsson to favor wireless providers *generally* over wireline providers. Ericsson provides operations support/business support services (OSS/BSS) for a wide range of wireless, wireline, cable, and IP customers. Favoring *wireless* customers would inevitably anger competing wireline and cable customers. Moreover, even among Ericsson's so-called "wireless" customers, many (including AT&T, Verizon and Sprint) also provide *wireline* services, rendering the notion of favoritism by category of provider unrealistic.

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[44] Telcordia Bid, VQS, Attachment to Question 3.5, at 11 ¶ 10 (Telcordia06084).

[45] *See, e.g.*, Telcordia Bid, VQS, Attachment to Question 3.5, Certificate of Ericsson, Annex B at 1 (noting that the MSAs "require that we operate in a vendor neutral and unbiased manor.").

[46] *North American Numbering Plan Administration; Neustar Inc. Request to Allow Certain Transactions Without Prior Commission Approval and to Transfer Ownership*, FCC 04-203, 19 FCC Rcd. 16,982, 16,991-92 ¶ 24 (2004). ("2004 *Safe Harbor Order*").

b. Ericsson Inc.'s Managed Services Agreements Do Not Subject It to Undue Influence.

In the United States, Ericsson "provides managed services to a range of telecommunications customers" through Ericsson Inc. Ericsson Inc.'s managed services agreements provide that it "takes responsibility for network design, planning, and building, including day-to-day operations, while the carrier retains responsibility for strategy, marketing and customer care."[47] These MSAs are arms-length contractual relationships—they are not joint ventures and do not include revenue-sharing agreements. Moreover, Ericsson Inc. has MSAs with ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** entities, only ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** of which are telecommunications services providers.

Neustar does not argue that any entities in contracts with members of the wireless or the telecommunications industry should be precluded from being the LNPA. Such a blanket prohibition would preclude Neustar itself from being the LNPA. According to Neustar's annual report, Neustar's "clients include Verizon Communications Inc., AT&T Inc., Comcast Corporation, and Time Warner Cable Inc., as well as emerging providers of voice over Internet protocol, or VoIP, services, social media, and message aggregators."[48] The report notes that "[w]ithin this industry, we provide numbering services, caller identification services, order management services, and marketing analytics."[49] Similarly, Neustar's website boasts that "[o]n

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[47] Telcordia Bid, VQS, Attachment to Question 3.5, at 11 ¶ 10 (Telcordia06084).

[48] 2013 Neustar Annual Report at 4, *available at* http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MjI5NzEwfENoaWxkSUQ9LTF8VHlwZT0z&t=1. (last accessed Aug. 7, 2014).

[49] *Id.*

behalf of the CTIA and wireless operators," it "manages and operates the US Common Short Code Registry," which "enables marketers and nonprofit organizations to lease five- or six-digit common short codes."[50] And Neustar also offers CNAM services to telecommunications services providers.[51]

Accordingly, Neustar makes the more limited argument that specific provisions of the MSAs render Ericsson subject to undue influence by particular wireless providers. That argument is baseless.

i. The Sprint MSA.

Neustar claims that Ericsson Inc.'s MSA with Sprint allows Sprint to "exert[] significant control over Ericsson's 'management and policies' 'by contract.'"[52] This is a gross distortion. Neustar first touts the *size* of the Sprint contract—citing media reports valuing the seven-year agreement at five billion dollars to suggest that its magnitude would subject Ericsson to undue influence by Sprint. But the numbers quoted by Neustar would amount to about $700 million per year, which is only about 2 percent of the $33 billion in net sales (SEK 227 billion) reported

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[50] NEUSTAR, *Mobile Outreach: How Nonprofit Organizations Can Use Common Short Codes to mobilize Millions of Volunteers, Dollars and Supporters*, at 4, *available at* http://www.neustar.biz/corporate/docs/how-nonprofits-can-use-common-short-codes-to-mobilize-volunteers-and-donations.pdf. (last accessed Aug. 7, 2014).

[51] NEUSTAR, Caller Name Services, http://www.neustar.biz/services/caller-name-services (last accessed Aug. 7, 2014).

[52] Neustar Comments at 16 (citation omitted).

in Ericsson's 2013 annual report.[53] Given Ericsson's diverse range of other business, a contract of this magnitude does not by any means suggest that Sprint controls Ericsson.

Neustar next quotes a number of contractual provisions from the Sprint MSA, implying that they cede control of the company to Sprint. As a threshold matter, the contract from which Neustar quotes is no longer in effect as of July 2013.[54] More importantly, however, even at the time it was in effect, the contract made clear that Ericsson and Sprint remained completely independent entities and were not ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** Ericsson Inc., as supplier, was responsible for ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** It also had ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** The current MSA between Sprint and Ericsson Inc. contains the same provisions.[58]

The provisions that Neustar quotes out of context do not allow Sprint to control Ericsson's management or policies in any way relevant to a neutrality analysis. On the contrary,

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[53] 2013 Ericsson Annual Report at 4, *available at* http://www.ericsson.com/thecompany/investors/financial_reports/2013/annual13/sites/default/files/download/pdf/EN_-_Ericsson_AR2013.pdf (last accessed Aug. 7, 2014).

[54] Declaration of Travis Baker at 1 ¶ 4 (attached as Exhibit A) ("Baker Declaration").

[55] *Id.* at 2 ¶ 5.

[56] *Id.*

[57] *Id.*

[58] *Id*. at 2 ¶ 6.

they provide that Ericsson Inc.'s employees who provide services to Sprint will abide by Sprint's Code of Supplier Conduct, which requires compliance with the law, maintenance of a drug free workplace, and similar provisions—none of which would allow Sprint to pressure Ericsson to behave in a non-neutral way.[59] Similarly, the contract requires Ericsson Inc. to abide by certain ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** But again, the contract makes clear that these policies all involve Ericsson Inc.'s *performance of services for Sprint* or conduct *while on Sprint property*—for example, ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** Again, these provisions plainly do not allow Sprint to influence Ericsson's conduct in any way that is relevant to a neutrality analysis.

Neustar similarly objects that the MSA establishes mandatory "Service Levels," or "specific performance metrics measuring the quality [and] efficiency" of network services, that

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[59] SPRINT, Code of Supplier Conduct, http://investors.sprint.com/file.aspx?IID=4057219&FID=1001176117 (last accessed Aug. 7, 2014).

[60] Baker Declaration at 2 ¶ 7 (emphasis in original).

[61] *Id.* at 2 ¶ 7

Ericsson must meet to perform the contract."[62] But Neustar's own contract with members of the wireless industry requires it to meet service levels set by CTIA.[63] In both cases, the fact that a contractor has to meet service levels—completely unrelated to number portability—set by another entity is simply irrelevant to whether the entity establishing those service levels could "unduly influence" the contractor in any relevant way.

Oddly, Neustar also argues that Ericsson actually controls Sprint—the opposite of its claim discussed directly above. For this absurd conclusion, Neustar points to a garden-variety provision emphasizing that Sprint and Ericsson Inc. are ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** That provision makes clear that ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** and further explains the implications of that statement:

> ****BEGIN HIGHLY CONFIDENTIAL**** [redacted]

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62 Neustar Comments at 16.

63 *See* Amended and Restated Common Short Code License Agreement Between CTIA—The Wireless Association and Neustar, Inc. at 115-123, Ex. F, effective June 2, 2008, *available at* http://yahoo.brand.edgar-online.com/EFX_dll/EDGARpro.dll?FetchFilingHtmlSection1?SectionID=6093247-317731-749867&SessionID=XLGvFCgZHmUsZ42 (last accessed Aug. 7, 2014) ("CTIA/Neustar Agreement").

[redacted] ****END HIGHLY CONFIDENTIAL****

Once again, however, such a garden-variety independent-contractor provision does not suggest that Ericsson controls Sprint any more than Neustar's contract with CTIA, which contains a substantially similar provision, makes Neustar subject to the control of the wireless industry.[65]

ii. The Clearwire MSA.

Neustar argues that Ericsson Inc.'s MSA with Clearwire demonstrates that Ericsson has a vested interest in numbering.[66] Neustar then quotes certain provisions of a now-defunct MSA

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[64] Baker Declaration at 3 ¶ 8.

[65] CTIA/Neustar Agreement at 34 § 10 ("Each Party acknowledges that the relationship between CTIA and Registry is that of an independent contractor. This Agreement creates no agency, partnership, joint venture or employment relationship between the Parties. Personnel utilized by Registry in the performance of Registry Services (hereinafter "Registry's Employee(s)") shall at all times remain under Registry's exclusive control and direction and shall be employees of Registry and not employees of CTIA or of any partnership or joint venture between CTIA and Registry. Registry further acknowledges that it is not considered an affiliate or subsidiary of CTIA, and is not entitled to any employee rights or benefits of CTIA. CTIA also acknowledges that it is not considered an affiliate or subsidiary of Registry and is not entitled to any employee rights or benefits of Registry. Neither Party shall have any power or authority to act for or on behalf, bind or commit the other. Nothing in this Agreement shall be deemed to render CTIA liable for any of the debts or obligations of Registry that Registry may have to any Third Party nor shall be deemed to render Registry liable for any of the debts or obligations of CTIA that CTIA may have to any Third Party.").

[66] Neustar Comments at 17, 23.

between Clearwire and Ericsson Inc. to suggest that Ericsson is responsible for ordering numbers on behalf of its MSA customers and for handling numbering problems and related numbering issues. The MSA between Clearwire and Ericsson Inc., however, *is no longer in effect*.[67] But Neustar claims that the agreement "whether or not it remains in effect, illustrates the nature of Ericsson's managed services business."[68] Once again, however, this is false. After Sprint acquired Clearwire, the MSA between Clearwire and Ericsson Inc. was terminated and merged with the Sprint MSA.[69] The Sprint MSA specifically provides that responsibility for certain ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** would be transferred back to Sprint.[71] Moreover, ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

Moreover, even when Ericsson Inc. did—in the past—have numbering responsibilities, it bears emphasis that, those responsibilities never included number portability or involved submitting any requests or initiating transactions with the NPAC.[73] To the extent that Ericsson

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[67] Baker Declaration at 3 ¶ 9.

[68] Neustar Comments at 17.

[69] Baker Declaration at 3 ¶ 10.

[70] *Id.* at 4 ¶ 11.

[71] *Id.* at 4 ¶ 11 ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

[72] *Id.* at 4 ¶ 12.

[73] *Id.* at 4 ¶ 13.

Inc. had responsibility for "numbering" at all, its responsibilities never required it to initiate transactions with the NPAC, nor did its contractual duties depend on its ability to successfully port a number through the NPAC or to obtain a certain result from the LNPA.[74] In short, Ericsson Inc.'s now-terminated contract with Clearwire does not create any "undue influence" on Ericsson.

c. Even if Ericsson Were Somehow Subject to Undue Influence, the Proposed Safeguards Create a Firewall Between Ericsson and Telcordia.

Even if Ericsson were subject to undue influence by a wireless provider—which it is not—that undue influence would be relevant only if it would cause *Telcordia* also to be subject to undue influence. Neustar asks the Commission to assume that because Telcordia and Ericsson Inc. are owned by Ericsson, any undue influence would automatically bleed through.[75] But this argument ignores the numerous safeguards that Telcordia has proposed to ensure that Telcordia would be protected from any possible perceived undue influence:

- Effective January 1, 2013, all Telcordia operations and employees other than Telcordia's former Interconnection Business Unit have been transferred to other Ericsson legal entities. The remaining Telcordia entity consists solely of the former Interconnection Business Unit, and provides number portability, anti-theft and anti-counterfeit device registries, information services, mobile messaging, and spectrum management services.[76] As a result, there is no reason to think that Telcordia will be used to "boost" Ericsson's managed services business, as Neustar claims.[77]

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[74] *Id.*

[75] Neustar Comments at 23 ("Ericsson is the sole shareholder of its subsidiary; under the Commission's rules (and as a matter of law and common sense), Ericsson thus controls its subsidiary—something that goes well beyond mere undue influence or indirect affiliation.").

[76] Telcordia Bid, VQS, Attachment to Question 3.5, Ex. A, at 2 ¶ 1 (Telcordia06092).

[77] Neustar Comments at 15.

- Telcordia has its own financial and accounting systems, compensation plan, health and welfare benefits, and human resources organization.[78] This further enhances Telcordia's independence.

- Telcordia will have its own board of directors, a majority of whom will be outside independent directors. The Board will have a fiduciary duty to protect the interests of *Telcordia*—not Ericsson.[79]

- The Board will be responsible for constituting a neutrality compliance committee and implementing appropriate safeguards to ensure neutrality, including neutrality audits by third-party auditors of Telcordia's operations, consistent with FCC requirements.

- Telcordia board members will not simultaneously serve as an officer or director of a Telecommunications Service Provider, nor will any board member have an ownership or voting interest of greater than ten percent in any Telecommunications Service Provider.

- All employees, contractors, officers, and directors of Telcordia will be bound by the LNPA Code of Conduct.

- All employees, contractors, officers, and directors of Telcordia are bound by the Ericsson Code of Business Ethics with respect to any work involving LNPA services.

- If Telcordia receives notice from Sungard AS that it or any affiliate has begun providing switched services that utilize number portability, Telcordia will notify the NAPM and the FCC within 7 business days.

Notably, the LNPA Code of Conduct referenced in the safeguards specifically prohibits Telcordia's employees, officers, or directors from showing any preference to a TSP with respect to LNPA services, and it prohibits the misuse of LNP user data or proprietary information.[80] Moreover, the safeguards and the Code of Conduct are backed up by an independent-audit

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[78] Telcordia Bid, VQS, Attachment to Question 3.5, Ex. A, at 2 ¶ 3 (Telcordia06092).

[79] *Id.* at 2 ¶ 4.

[80] *Id.* at 1 ¶¶ 1-2.

requirement so that an independent third party that will frequently review and assess Telcordia's operations to ensure that its operations are neutral.[81]

As USTA and CTIA have recognized, these safeguards ensure the LNPA's neutrality,[82] just as the safeguards imposed by the Commission in the *Warburg* Order did. There, the Commission allowed Warburg to be the largest shareholder in Neustar notwithstanding that "Warburg, by virtue of its investments in telecommunications service providers, would have an interest in the outcome of numbering administration and activities."[83] Notably, *Warburg* presented a much more difficult case, because Warburg controlled both the LNPA and a telecommunications carrier, and had a significant minority interest in a second telecommunications carrier that had stated it might trial switched voice services.[84]

Neustar argues that the safeguards advanced by Telcordia are inadequate because they are not identical to the safeguards that the Commission imposed in *Warburg*. Neustar complains, for example, that the proposed Code of Conduct binds only "Telcordia's employees, officers, and directors" and does not apply to Ericsson's employees as was the case in *Warburg*.[85] And it complains that Telcordia's proposed safeguards are not identical to a long list of conditions

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81 *Id.* at 2 ¶ 5.

82 USTA/CTIA Reply Comments at 11.

83 *Warburg, Pincus Transfer Order*, 14 FCC Rcd. at 19,810 ¶ 29.

84 *Id.* at 19,810 ¶ 29 n.106 ("For example, we note that Covad, on June 7, 1999, issued a press release announcing that it has completed trials that successfully demonstrate its ability to provide voice over DSL. While this is not determinative of Covad's intent to obtain numbering resources in the future, it is indicative that Covad's market position continues to evolve and demonstrates Covad's intent to compete head to head with entities that do utilize numbering resources.").

85 Neustar Comments at 28-29.

imposed on Neustar when it became a public company. Neustar insists that the Commission's precedents are "[b]inding" and therefore that the Commission must reject Telcordia's proposed safeguards because they are not identical to the safeguards the Commission imposed previously.

The wooden approach proposed by Neustar is both inappropriate and incorrect as a matter of law. Even when interpreting statutes, the Commission can adopt a different interpretation from one that it originally adopted so long as it can provide a reasoned explanation.[86] The first interpretation is not "binding." Here, however, the Commission need not change its interpretations. The undue-influence analysis is a flexible standard that "affords [the Commission] broad discretion."[87] The Commission has used that discretion to tailor neutrality safeguards to address the specific circumstances of the company at issue. That is why, for example, the Commission imposed different and additional neutrality safeguards on Neustar when it became a public company, noting that "the regulation of NeuStar as a privately held company would differ in some respects from the regulation of NeuStar as a publicly owned company."[88] Moreover, the Commission has never held that the particular set of safeguards it imposed on Neustar in the Warburg transaction is the *only* set of safeguards that would allow any company to be neutral. On the contrary, the Commission found that "the voting trust structure proposed by the parties will adequately prevent Warburg or its affiliates from exercising undue influence on the NANPA in its numbering administration functions."[89] So too here. The

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[86] *See FCC v. Fox Television Stations*, Inc., 556 U.S. 502, 514-16 (2009); *Verizon v. FCC*, 740 F.3d 623, 636-37 (D.C. Cir. 2014).

[87] *Warburg, Pincus Transfer Order*, 14 FCC Rcd. at 19,808 ¶ 24.

[88] *2004 Safe Harbor Order*, 19 FCC Rcd. at 16,982 ¶ 2.

[89] *Warburg, Pincus Transfer Order*, 14 FCC Rcd. at 19,811 ¶ 31.

safeguards that Telcordia proposed will ensure that there is not even the possibility of a perception that Ericsson could undermine the neutrality of LNPA administration.

Neustar attempts to quibble with this conclusion, claiming that Telcordia's outside board of directors—which has more independent members than the one approved by the Commission in *Warburg*[90]—is not truly independent because they will owe their fiduciary duties to Ericsson. The point of an independent board, however, is to ensure that Telcordia's directors owe fiduciary duties to Telcordia as a company—and not to Ericsson. This point is only underscored by the LNPA Code of Conduct, which applies to Telcordia's board members and prohibits them from taking actions that would favor one telecommunications service provider over another or from sharing LNP proprietary information.

Ericsson has also made it clear that it is in Ericsson's corporate interest for Telcordia to be neutral.[91] Indeed, in a letter attached to Telcordia's bid, Ericsson affirmed its intent to "assure the neutrality of Telcordia in the USA with respect to the LNPA contract" and "to install a governance structure which will ensure all U.S. neutrality requirements are upheld." Ericsson further stated that it would "take whatever actions are necessary to address any issues raised by the Federal Communications Commission or other governing bodies for neutral governance and operation."[92]

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[90] In the *Warburg, Pincus Transfer Order*, Neustar's board consisted of two Warburg representatives, two unaffiliated directors, and one Neustar executive. *Id.* at 19,802 ¶ 12. By contrast, Telcordia's safeguards include a *majority* of independent directors (*i.e.*, 3), one Ericsson representative, and a Telcordia executive.

[91] *See* Telcordia Bid, VQS, Attachment to Question 3.5, Certificate of Ericsson, Annex B at 1-2 (Telcordia06131-Telcordia06132).

[92] *Id.* at 1 (Telcordia06131).

Finally, in evaluating the adequacy of Telcordia's neutrality safeguards, there is nothing in Section 251(e) or the Commission's rules that prevents the Commission from balancing the extreme unlikelihood here of any discriminatory conduct against the cost to industry and consumers from disqualifying Telcordia. In addition to Section 251(e), the Commission also has the responsibility under Section 201(b) to ensure that charges "in connection with" common carrier services are just and reasonable. It would be irrational—and contrary to Commission actions in similar contexts—to interpret 251(e)'s requirement of impartiality to require foreclosing even remote possibilities of discriminatory incentive at the cost of ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** over the life of the next LNPA contract.[93]

3. Telcordia's Experience Providing LSMS/SOA Systems Does Not Present a Neutrality Problem.

The LNP Alliance suggests that ****BEGIN HIGHLY CONFIDENTIAL**** [redacted]

[93] *See Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161, 26 FCC Rcd. 17,663, 17,711 ¶ 124 (2011) ("As we explained with respect to the budget for the Schools and Libraries program, we 'must balance [our] desire to ensure that schools and libraries have access to valuable communications opportunities with the need to ensure that consumer rates for communications services remain affordable. End users ultimately bear the cost of supporting universal service, through carrier charges.'"); *see also In re FCC 11-161*, 753 F.3d 1015, 1143 (10th Cir. 2014) ("[T]he FCC has broad discretion to balance competing policy goals"); *Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Report and Order and Further Notice of Proposed Rulemaking, FCC 13-82, 28 FCC Rcd. 8618, 8694-8706 ¶¶ 188-216 (2013), *petition for review pending*, *Sorenson Communications v. FCC*, No. 13-1215 (D.C. Cir.).

[redacted] ****END HIGHLY CONFIDENTIAL**** This is a red herring. Neustar itself provides LSMS/SOA systems as well as pre-porting products to both wireless and wireline customers. Yet there is no indication that Neustar has had any opportunity to leverage its control over the NPAC into a monopoly over LSMS/SOA services. On the contrary, as ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** Telcordia is the leading provider of LSMS/SOA services even though it does not currently run the NPAC. Neustar's control over the NPAC has not allowed it to monopolize LSMS/SOA services.

The reason that neither Neustar's nor Telcordia's LSMS/SOA businesses raise neutrality issues likely is that the NPAC is a highly specified system. Because the design of the system is so highly specified, there simply is not any real opportunity to design the system in order to favor one type of LSMS/SOA system over another.

****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** but this suggestion is equally nonsensical. The argument is premised on the idea that *any* LNPA that also has an LSMS/SOA business would have the incentive to manipulate the NPAC in order to favor its own LSMS/SOAs and thus increase its share of the LSMS/SOA market. This supposed incentive does not depend on market share.

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[94] Comments of the LNP Alliance at 11-12, CC Docket No. 95-116, WC Docket Nos. 09-109 and 07-149 (filed July 25, 2014) ("LNP Alliance Comments").

[95] *Id*. at 13.

C. Sungard AS Is Neutral and Is, in any Case, Not Subject to the Three-Prong Neutrality Analysis.

As Telcordia explained in its opinion letter, Sungard AS—the subcontractor it intends to use to host its data centers—is also neutral. Sungard AS is not a TSP, an IVP, or an affiliate of such an entity; it does not derive the majority of its revenues from or issue the majority of its debt to such an entity; and it is not subject to undue influence. Neustar nevertheless asks the Commission to disqualify Telcordia's bid on the theory that Sungard AS does not meet the neutrality requirements. Neustar does not dispute that Sungard AS meets the second criterion of the neutrality analysis but argues that Sungard AS is an affiliate of a TSP or IVP and that Sungard AS is subject to undue influence. Neustar's arguments are meritless.

1. As a Hardware/Software Provider, Sungard AS Is Not Subject to the Three-Prong Neutrality Analysis.

The RFP's neutrality requirements do not apply to a subcontractor such as Sungard AS that will run a data center. The VQS states that a subcontractor which provides *NPAC services* or is included in providing those services must be neutral: "[T]he Primary Vendor (and all Sub-Contractors that the Primary Vendor *will engage or include in providing the Services*)" must meet the neutrality criteria.[96] But the VQS also makes clear that subcontractors need not be neutral if they merely supply the computer and software systems that are used by the primary vendor to provide NPAC services: "It is possible for a Primary Vendor that is precluded from being the NPAC/SMS Administrator may be allowable as another Primary Vendor's Sub-Contractor (hardware/software provider) if that Primary Vendor qualifies as a Neutral Third

[96] VQS § 3.4 (emphasis added).

Party in responding to the RFP."[97] This distinction is rooted in common sense—a subcontractor who is merely providing hardware/software services (such as a data center) is not in any position to influence the neutrality of the LNPA and need not be neutral.

Telcordia has proposed to use Sungard AS only to run its data center and to manage certain Oracle databases.[98] Sungard AS would not have any data-input functions or be otherwise involved with providing NPAC services, and in no case would it have any discretionary functions. Accordingly, as a "hardware/software provider," it would not have any opportunity to influence the neutrality of the NPAC, and there is no reason to subject it to a neutrality analysis.

2. Sungard AS Is Neutral.

Neustar, ignoring the plain language of the VQS, nevertheless argues that the Commission should disqualify Telcordia under the theory that Sungard AS is not neutral. Neustar also argues that Sungard AS is an affiliate of a TSP and that it is subject to undue influence. As explained below, both arguments are wrong.

a. Sungard AS is Not an Affiliate of a TSP or an IVP.

i. Silver Lake and TPG's Interest in Avaya Does Not Make Avaya an "Affiliate" of Sungard AS under the *Warburg* Analysis.

As explained in Telcordia's opening comments, in April of this year, Sungard AS's corporate parent—SunGard Data Systems Inc. ("SDS")—spun it off. Sungard AS is now owned 100 percent by ****BEGIN CONFIDENTIAL**** [redacted]

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97 *Id*.

98 Neustar asserts that Sungard will be "in charge of administering the database itself." Neustar Comments at 43. This statement is highly misleading. Sungard will run the data center and manage certain Oracle databases, which is largely a function of making sure the software is up to date. It will not, as Neustar seems to suggest, input data into the databases.

[redacted]

****END CONFIDENTIAL****

None of these owners individually has *de jure* or *de facto* control of Sungard AS.

Neustar suggests that Sungard is not neutral because two of its owners also own interests in Avaya, which is a TSP. As explained in the opinion letter, however, Sungard AS is not an affiliate of Avaya under the *Warburg* analysis.

Again, in *Warburg*, Lockheed Martin proposed to transfer its NANPA responsibilities to Neustar, a newly formed entity that was to be owned in large part by Warburg Pincus Equity Partners ("WPEP") and indirectly by Warburg, Pincus & Co. ("Warburg"). In applying the first criterion of the neutrality analysis, the Commission determined that Warburg and WPEP "have several affiliate relationships with telecommunications service providers through their ownership of an[d] equity interest in those companies."[99] Nonetheless, even though WPEP would own

[99] *Warburg, Pincus Transfer Order*, 14 FCC Rcd. 19,809 ¶ 26 n.103.

interests in both Neustar *and* the telecommunications providers, the Commission determined that NeuStar was *not* an affiliate of those telecommunications providers because no TSP would "1) own a 10 percent or more equity interest in NeuStar; 2) have the power to vote 10 percent or more of NeuStar's securities; or 3) have the power to direct NeuStar's management and policies."[100]

The same is true here. Because Avaya does not "1) own a 10 percent or more equity interest in [Sungard AS]; 2) have the power to vote 10 percent or more of [Sungard AS's] securities; or 3) have the power to direct [Sungard AS's] management and policies,"[101] Avaya and Sungard AS are not affiliates under the *Warburg* analysis. Neustar attempts to differentiate *Warburg* on the ground that "[t]he finding in *Warburg* was predicated on Warburg reducing its ownership stake to less than 10% and placing the remainder of its interest in an irrevocable voting trust,"[102] but the Commission gave no indication that its analysis of whether Neustar was an affiliate of a telecommunications service provider was predicated on the existence of a voting trust; to the contrary, the Commission concluded that its three-prong definition of affiliate had not been met. In short, Avaya does not meet the three-prong definition of affiliate.

ii. SNS is Neither a TSP Nor an Affiliate of Sungard AS.

Neustar also argues that Sungard AS is not neutral because it is an affiliate of SunGard NetWork Solutions Inc. (now named Sungard Availability NetWork Solutions, Inc.) ("SNS"), which Neustar claims is a TSP. This is wrong for two reasons. *First*, SNS is not a provider of

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[100] *Id.* at 19,809 ¶ 26.

[101] *Id.* at 19,809 ¶ 26.

[102] Neustar Comments at 39.

telecommunications services. As the Commission explained in *Warburg*, "telecommunications service providers are carriers that hold themselves out 'to service indifferently all potential users' of common carrier services."[103] SNS does not, however, offer common carrier services to the public. It offers only enhanced services. Specifically, SNS offers dedicated, non-switched data circuits to provide to its affiliates' customers solely in connection with their use of Sungard AS data services (*i.e.*, hosting, managed services, recovery services). Moreover, SNS has represented that it has no intention of *ever* offering regulated telecommunications services—and in particular, as stated in the opinion letter, it has no intention of offering switched voice services that would use number portability.

Neustar suggests that SNS is a provider of telecommunications services because it has registered to provide telecommunications services in three states as required by the state public utility regulation. But as Telcordia has previously explained, these registrations were made "out of an abundance of caution" because state utility regulations were "sufficiently broad" to potentially cover its enhanced services.[104]

The limited nature of SNS's offerings is reflected in the filings before the relevant state public utility commissions. SNS obtained its certificates as part of an acquisition of InFlow Group, Inc. In the North Carolina and Minnesota applications seeking approval for SNS to acquire Inflow's certificates of public convenience and necessity, the parties explained that (a) InFlow offered its services to "business customers who locate their servers and other equipment

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[103] *Warburg, Pincus Transfer Order*, 14 FCC Rcd. at 19,809 ¶ 25; *see also NANP Administration Third Report and Order*, 12 FCC Rcd. at 23,077 ¶¶ 70-71.

[104] Telcordia Bid, Letter from John Nakahata to Dan Sciullo, FoNPAC, and Sanford C. Williams, FCC, at 12 (filed Nov. 13, 2013) (Telcordia06428).

in InFlow's data centers;" (b) those services "are offered only as a component of a broader, enhanced service offering provided by InFlow to its customers" and are not sold "to customers on a stand-alone basis;" and (c) "the parties to this application have no present intention to offer traditional local exchange or exchange access voice services in the future."[105] Nothing has changed with respect to those services since those filings almost a decade ago. SNS does not offer local exchange or exchange access services, does not offer telecommunications services on a standalone basis, and has never informed those state of any intention to do so.

Second, for the same reason that Avaya and Sungard AS are not affiliates, SNS and Sungard AS do not meet the definition of affiliate. SNS does not "1) own a 10 percent or more equity interest in [Sungard AS]; 2) have the power to vote 10 percent or more of [Sungard AS's] securities; or 3) have the power to direct [Sungard AS's] management and policies"[106] and thus is not a Sungard AS affiliate.

iii. Rignet.

Neustar finally argues that Sungard AS is an affiliate of an entity named Rignet under the theory that both Sungard AS and Rignet are owned by "KKR." This is incorrect, and in making this assertion, Neustar has conflated a number of distinct private equity funds. Sungard AS is

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[105] *Application of Inflow, Inc., and Sungard NetWork Solutions Inc. for Approval of Transfer of Control*, Application for Consent to Assignment of Certificates of Public Convenience and Necessity and Transfer of Control of Certificate Holder at 2-3 (North Carolina Utilities Commission, filed Jun 30, 2005); *InFlow, Inc.*, Application for Consent to Transfer of Assets and Liabilities at 2-3 (Minn. Public Utilities Commission, filed Oct. 11, 2005). The Oregon application was submitted on a form provided by the state, but similar representations regarding the limited nature of the services offered were included in correspondence accompanying the application.

[106] *Warburg, Pincus Transfer Order*, 14 FCC Rcd. at 19,809 ¶ 26.

owned by ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** By contrast, Rignet is owned by ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Although both funds have the same general partner and are managed by KKR & Co. L.P., these are distinct private equity funds—presumably with distinct sets of investors. As a result, it would be a breach of fiduciary duty for KKR to attempt to use one fund's ownership in Sungard AS to the advantage of the distinct group of investors in Rignet. Doing so would prejudice the Sungard AS investors by threatening the Sungard AS contract.[107]

For that reason, Rignet and Sungard AS do not meet the *Warburg* test for affiliation. Rignet does not "1) own a 10 percent or more equity interest in [Sungard AS]; 2) have the power to vote 10 percent or more of [Sungard AS's] securities; or 3) have the power to direct [Sungard AS's] management and policies"[108] and thus is not a Sungard AS affiliate.

b. Sungard AS Is Not Subject to Undue Influence.

Even if the Commission were to determine that Sungard AS had an indirect affiliation with one or more TSPs, that does not end the analysis. As explained earlier, even if the primary vendor does not fully meet the requirements of the first two criteria of the neutrality analysis, the Commission may nonetheless find that it is neutral if it is not subject to undue influence by

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[107] Similarly, Blackstone Capital Partners VI, L.P. owns a ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** in Vivint, Inc. But that does not pose a neutrality issue because Sungard AS is owned by different Blackstone funds—****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

[108] *Id.* at 19,809 ¶ 26.

parties with a vested interest in numbering administration.[109] Moreover, the RFP stated that "[i]t is possible for a Primary Vendor that is precluded from being the NPAC/SMS Administrator may be allowable as another Primary Vendor's Sub-Contractor (hardware/software provider) if that Primary Vendor qualifies as a Neutral Third Party in responding to the RFP."[110]

Sungard AS is not subject to undue influence. As the entity providing Telcordia's data center, Sungard AS would not be capable of doing anything that could even conceivably influence the neutrality of LNP administration. Sungard AS does not have responsibility for entering data into databases or for determining the order in which ports are processed. Thus, even if it were subject to influence by a TSP—which as explained later, it is not—any influence would not affect the NPAC in any way. That is why, as explained above, the RFP did not even contemplate that the Commission would apply the neutrality analysis to a data center/infrastructure services contractor like Sungard AS.

Neustar argues that Sungard AS will be subject to undue influence because Glenn Hutchins—a board member of SDS—is now on the board of AT&T. This argument is moot following Sungard AS's spin-off, however, because Sungard AS's board now consists of ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** has agreed to recuse himself from any decisions regarding the Telcordia contract.

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[109] *NANP Administration Third Report and Order* 12 FCC Rcd. at, 23,081 ¶ 81.

[110] VQS § 3.4

Neustar also suggests that Sungard AS's private equity owners might attempt to unduly influence it because of their holdings in SDS and the other entities discussed above. That, however, is not possible as a matter of corporate law. Sungard AS is owned not only by the private equity companies discussed in Neustar's comments but also by ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Sungard AS's board members owe fiduciary duties to *all* of Sungard AS's owners—not just the private equity owners that have interests in telecommunications providers, and under basic principles of corporate law, they may not take actions that would harm Sungard AS in order to favor the TSP holdings of Sungard AS's majority shareholders. Importantly, *any* non-neutral conduct would harm Sungard AS because it would jeopardize its ability to continue serving as a subcontractor for the LNPA contract.[111]

Finally, as with Telcordia, in weighing whether circumstances lead to a conclusion of "undue influence," the Commission may consider costs to the industry and consumers.[112] That is particularly true with respect to Sungard AS, which has a very limited role as the provider of the infrastructure to house Telcordia servers and underlying database software, server maintenance,

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[111] Moreover, as with KKR's interest in Rignet, if the specific investment funds holding the ownership interests in Sungard and the telecommunications provider are not identical, corporate law would also prohibit any exercise of undue influence.

[112] *See supra* at 30-31.

back-up, security, network monitoring and service restoral for the NPAC servers and database, and which is not inputting data into the NPAC or conducting discretionary operations.

Thus, no matter what the Commission determines about Sungard AS's affiliations, one thing is clear: Sungard AS is not subject to any undue influence that could potentially affect the administration of the NPAC.

D. If the FCC Desires Additional Safeguards, They Can Be Implemented Without Re-Opening the Competition.

The solicitation defines a clear procedure for assessing neutrality and delineates the authority for such a review. The bid documents expressly state that although the NAPM LLC "will initially decide whether the Respondent satisfies the Neutrality criteria," the ***Commission*** shall verify neutrality compliance prior to award.[113] Consistent with that provision, the FoNPAC's award recommendation states that it is ****BEGIN CONFIDENTIAL****

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Further, as explained below, in the event the FCC were to be unable to verify compliance with neutrality, the solicitation expressly provides that additional neutrality measures may be

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[113] *See* VQS § 3.5.

[114] Future of the NPAC, Local Number Portability Administration Request for Proposal Evaluation Summary and Selection Report ("FoNPAC Selection Report") at 12, *attached as Exhibit B to* LNPA Selection Working Group ("SWG") Report to NANC on LNPA Vendor Selection Recommendation of the Future of the NPAC Subcommittee ("FoNPAC") at 3 (2014) ("SWG Selection Report"). The SWG Selection Report was attached to the Letter from Betty Ann Kane, Chairman, North American Numbering Council, to Julie A. Veach, Chief, Wireline Competition Bureau, Federal Communications Commission, WC Docket No. 09-109, CC Docket No. 95-116 (dated Apr. 24, 2014 and filed Apr. 25, 2014) ("NANC Apr. 24 *Ex Parte* Letter").

implemented between award and the contract start date, and that contemplated exchange is entirely consistent with analogous federal procurement practice. Neustar's self-serving assertions that the award recommendation is defective, and that the competition must be re-opened, thus are meritless.

1. Additional Neutrality Measures May Be Implemented at Any Time Between the Award and the Contract Start Date.

The solicitation sets forth the neutrality requirements applicable to offerors' proposals. Section 3.4 outlines the specific Neutrality requirements, and the detail that offerors must provide to substantiate their neutrality.[115] Then, Section 3.5 clarifies that offerors were to provide a legal opinion addressing compliance with the solicitation's neutrality requirements, and states that "[a]s long as a Respondent submits a Legal Opinion by the RFP Response Cut-Off Date, the submission ***shall be considered on the merits***, pursuant to the Evaluation Criteria in the RFP, and may not be disqualified on neutrality grounds."[116]

The solicitation goes on to explain that the ultimate assessment of neutrality—based upon the opinion letters and additional documentation provided by offerors—shall be made by the Commission, rather than by the FoNPAC or NANC. And it states that "[p]rior to award, the FCC will verify neutrality compliance. If the FCC determines that a Respondent is not in compliance with the neutrality criteria, ***and such noncompliance will not be cured by the start date of the new LNPA contract***, the FCC shall disqualify the Respondent from the procurement."[117]

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[115] *See* VQS § 3.4.

[116] *Id*. § 3.5 (emphasis added).

[117] *Id.*

That language clearly contemplates that, once the Commission evaluates neutrality, concerns can be addressed at any time prior to the contract start date. As discussed above, Telcordia amply satisfies the solicitation's neutrality requirements. But should the Commission have any concerns whatsoever, the solicitation allows the Commission and Telcordia to address such concerns prior to the start of contract performance. There is no need to re-open the competition—which would substantially delay the start of contract performance—as Neustar demands.

Other elements of the RFP also show that compliance with the solicitation's neutrality requirements was always intended to be an ongoing effort. For example, the resultant contract will require a neutrality audit every six months during contract performance, and the solicitation required offerors to acknowledge that they would be subjected to such a review.[118] This requirement shows that a prospective offeror's neutrality is properly viewed as a contract performance issue, and that additional neutrality measures might be required both ***before*** and ***during*** contract performance.

To the extent Neustar is now challenging the fact that the solicitation permits post-award changes to the proposed awardee's neutrality plan, Neustar waived that argument by failing to challenge the provision prior to the due date for proposals. If, as Neustar now contends, the FoNPAC should have required offerors to set in stone their neutrality solution prior to even being selected as the awardee, it was incumbent on Neustar to raise that challenge prior to

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[118] *See* NAPM, LLC, 2015 LNPA RFP § 4.2 ("RFP"), *available at* https://www.napmllc.org/Docs/npac/ref_docs/2015%20LNPA%20RFP%202%204%2013.docx (last accessed Aug. 7, 2014).

submitting its bid.[119] Neustar should not be permitted to game the system. It cannot sit on its hands, allow the procurement to proceed to a close, and then raise concerns it could and should have raised long ago.

2. Allowing the Awardee to Address any Neutrality Concerns Without Re-Opening the Competition Is Entirely Consistent with Analogous Federal Procurement Practice.

Moreover, even if Neustar had timely challenged the solicitation's neutrality provisions prior to proposal submission, that challenge would fail. Neustar asserts that ***any*** exchange between the FCC and Telcordia leading to a modification of Telcordia's neutrality plan would require reopening the competition and obtaining revised proposals from all offerors.[120] Although the LNPA selection process is not a procurement subject to the Federal Acquisition Regulation ("FAR"), procurement law serves as a useful analogy on this point and demonstrates that the solicitation's approach is entirely sound and proper.

Under federal procurement law, a request for information that relates to an offeror's responsibility does not trigger the requirement to hold discussions with ***all*** offerors in the competitive range.[121] This is because the question of responsibility does not involve an evaluation of the substance of the offeror's proposal in response to a particular solicitation. Rather, it is a separate, affirmative determination by the contracting officer that the contractor

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[119] *See, e.g.*, *Blue & Gold Fleet, L.P. v. U.S.*, 492 F.3d 1308, 1315 (Fed. Cir. 2007) (holding that an offeror in a federal procurement must raise any challenges to the terms of the solicitation before proposal submission, or those challenges are waived).

[120] That argument is particularly ironic given that Neustar itself has had to modify its neutrality plan on multiple occasions after it was designated as LNPA.

[121] *See General Dynamics—Ordnance & Tactical Sys.*, B-295987, B-295987.2, 2005 CPD ¶ 114 at 10 (Comp. Gen. May 20, 2005).

meets the standards outlined in FAR 9.104-1 regarding the contractor's general eligibility and ability to perform (based upon factors such as the entity's financial status, corporate resources, past performance, and record of integrity and business ethics). An agency's responsibility determination is independent from the agency's assessment of the technical merits of the proposed awardee's proposal under the solicitation's technical evaluation criteria.

Even more illustrative is how the federal procurement system handles organizational conflicts of interest ("OCIs"). Agencies often must evaluate whether an apparent awardee has an OCI, and that assessment is similar to the Commission's evaluation of neutrality here: it requires an assessment of (1) whether the offeror has other business interests that might impair its objectivity in performing the contract; and (2) if the offeror has such interests, whether the conflict has been adequately mitigated.

An agency's assessment of OCIs and related mitigation measures is treated like a responsibility determination—meaning that the agency may exchange information regarding the awardee's mitigation plan, and may modify that plan, without any need to reopen discussions with all offerors.[122] In fact, FAR 9.504(e) provides for a strikingly similar exchange of information as what is contemplated under the LNPA solicitation. Specifically, the FAR requires that:

> The contracting officer shall award the contract to the apparent successful offeror unless a conflict of interest is determined to exist that cannot be avoided or mitigated. Before determining to withhold award based on conflict of interest

[122] *See Overlook Sys. Tech.*, B-298099.4; B-298099.5, 2006 CPD ¶ 185 at 21 (Comp. Gen. Nov. 28, 2006) ("*Overlook Sys. Tech.*").

> considerations, the contracting officer shall notify the contractor, provide the reasons therefore, and allow the contractor a reasonable opportunity to respond.[123]

This system expressly contemplates that this exchange will occur ***after*** the evaluation is complete and an awardee has been selected—and that is what routinely happens.[124] And agencies have broad discretion to conclude that any concerns can be corrected prior to the start of contract performance.[125]

The Commission's assessment of Telcordia's neutrality—and its associated assessment of whether Telcordia will be subject to influences that might impair its objectivity when serving as the LNPA—is highly analogous to an agency's OCI assessment. Just as in the federal procurement context, there is no need to reopen the competition in the event that the FCC has concerns regarding Telcordia's neutrality. The solicitation—like FAR 9.504—expressly permits exchanges with the apparent awardee to explore and resolve any concerns prior to contract performance.

For all of these reasons, the FonPAC and the NANC properly deferred to the Commission on the issue of neutrality, and the Commission has full discretion to engage in an exchange with Telcordia as the apparent awardee to resolve any concerns it may have.

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[123] FAR 9.504(e).

[124] *See Overlook Sys. Tech.*, 2006 CPD ¶ 185 at 20; *see also CIGNA Gov't Servs., LLC*, B-401068.4, B-401068.5, 2010 CPD ¶ 230 at 10-11, (Comp. Gen. Sept. 9, 2010).

[125] *See Overlook Sys. Tech.*, 2006 CPD ¶ 185 at 16 (noting that agencies are "allowed to exercise 'common sense, good judgment, and sound discretion' in assessing whether a potential conflict exists and in developing appropriate ways to address it.").

II. A NOTICE OF PROPOSED RULEMAKING IS NOT REQUIRED, AND THE COMMISSION HAS OFFERED MORE THAN SUFFICIENT OPPORTUNITIES FOR PUBLIC PARTICIPATION.

The selection of an LNPA is a classic informal adjudication—a highly fact-dependent decision resolving which of two competing bidders will have the right to enter a contract to be the next LNPA. Despite these hallmarks of adjudication, Neustar argues that the Commission must make the selection through the informal-rulemaking process of 5 U.S.C. § 553.[126] This argument is incorrect. Contrary to Neustar's protestations, the selection of an LNPA bears little resemblance to a legislative rule, nor has the Commission enshrined the identity of the LNPA in a rule.

A. The Selection of the LNPA Is an Adjudicative Function.

Neustar first argues that the Commission must act by rulemaking because the appointment of an LNPA is an inherently legislative function. This is incorrect. The selection of an LNPA is a fact-intensive decision directly deciding the rights of the two competing bidders. As a result, the selection is an informal adjudication that is not subject to the informal-rulemaking procedures of 5 U.S.C. § 553.[127] Neustar's argument conflates rulemaking and adjudication.

The primary difference between an adjudication and a rulemaking is that an adjudication resolves questions "among specific individuals in specific cases, whereas rulemaking affects the

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[126] Neustar Comments at 50-62.

[127] *See also* USTA/CTIA Comments at 10 ("It is settled law that the Administrative Procedure Act does not require the Commission to engage in notice-and-comment rulemaking when undertaking informal adjudication like the administrator-selection at issue here.").

rights of broad classes of unspecified individuals."[128] Put differently, an adjudication has an "immediate effect on specific individuals (those involved in the dispute)," while a rulemaking is purely prospective "and has a definitive effect on individuals only after the rule is subsequently applied."[129] Indeed, the APA defines an adjudication to include cases where an agency grants a "permit, certificate, approval, registration, charter, membership, statutory exemption or other form of permission."[130] Here, the Commission has already established the process for selecting the LNPA. What is left is a classic adjudicatory function—to select an Administrator.[131]

Neustar argues that selecting the LNPA is a legislative rule because it is of "general or particular applicability," of "future effect," and "designed to 'implement, interpret or prescribe law or policy."[132] While Neustar is correct that a rulemaking announces new policies of general import or amends prior rules,[133] this selection will do neither. First, the LNPA selection will determine which entity or entities are authorized *now* to negotiate and sign an LNPA contract with NAPM, not in the future. While that selection will also determine who will be the LNPA in

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[128] *Yesler Terrace Cmty. Council v. Cisneros*, 37 F.3d 442, 448 (9th Cir. 1994).

[129] *Id.*

[130] *See* 5 U.S.C. § 551(8) (defining "adjudication" as "agency process for the formulation of an order"); *id.* § 551(6) (defining "order" as "the whole or a part of a final disposition, whether affirmative, negative, injunctive, or declaratory in form, of an agency in a matter other than the rule making but including licensing"); *id.* § 551(8) defining "license" to include "the whole or a part of an agency permit, certificate, approval, registration, charter, membership, statutory exemption or other form of permission").

[131] *See id.* § 551(8); *Harborlite Corp. v. ICC*, 613 F.2d 1088, 1093 n.11 (D.C. Cir. 1979) ("[A] classic case of agency adjudication . . . involves decisionmaking concerning specific persons, based on a determination of particular facts and the application of general principles to those facts.").

[132] Neustar Comments at 51 (internal quotation marks omitted).

[133] *See Conference Grp., LLC. v. FCC*, 720 F.3d 957, 965 (D.C. Cir. 2013).

years to come, that does not transform the decision into a rulemaking.[134] If it did, all adjudications would become rulemakings because every adjudication has some prospective effect on the rights of certain parties. Second, and contrary to Neustar's claims,[135] the Commission need not prescribe any new practices to select the next LNPA. The Commission has already promulgated the rules governing the LNPA's duties and practices[136]—all that is left is to select which of two parties should be the next LNPA. This "highly fact-specific, case-by case" type of determination, which is more similar to an agency granting a permit or license than a sweeping, generally applicable rule, is an adjudication.

Neustar also contends that this proceeding is a rulemaking because LNPA selection "has implications for quasi-legislative judgments" such as the "price of portability," the LNPA's corporate structure, the provision of portability and numbering services, and the operation of NPAC database facilities.[137] This argument is inconsistent with Neustar's own public position that LNPA contracts are merely "private contracts between private parties"[138] implicating "only private fees paid by those carriers" which "do not commit the government to any course of action."[139] It is also irrelevant. Adjudications regularly have prospective effect and affect parties

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[134] *Id.*

[135] *See generally*, Neustar Comments at 51.

[136] *See, e.g.*, 47 C.F.R. § 52.25(b), (f) (adopting rules on "equal and open access to regional databases" and limiting information stored in the databases to what is "necessary to route telephone calls to the appropriate telecommunications carriers); *see generally id.* Part 52, Subpart C (rules governing number portability and its administration).

[137] Neustar Comments at 51-52.

[138] Neustar's Ex Parte Response to the Reply Comments of Telcordia Technologies, Inc., at 11, WC Docket No. 09-109 (filed Dec. 9, 2009).

[139] *Id.* at v.

not before the Commission. As the D.C. Circuit recently explained, "[t]he fact that an order rendered in an adjudication 'may affect agency policy and have general prospective application,' does not make it a rulemaking subject to APA section 553 notice and comment."[140] This is because any adjudication carries with it collateral effects, some of which touch on law and policy. The mere fact that the LNPA selection may have implications on other policy questions does not turn this adjudication into rulemaking.

Moreover, the authorities Neustar cites in support of its position do not actually deal with whether an agency action is a rulemaking or an adjudication. For example, Neustar cites a four-factor test to determine "whether agency action is interpretive or legislative."[141] That test does not apply here, however, because the case Neustar cites *presupposed that it was dealing with a rule* and sought to determine whether a particular *rule* was legislative or interpretive.[142] The court was not presented with the question whether agency action was rulemaking or adjudication, and thus the four-factor test is irrelevant.

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[140] *Conference Grp., LLC*, 720 F.3d at 966 (quoting *N.Y. State Comm'n on Cable Television v. FCC*, 749 F.2d 804, 814 (D.C. Cir. 1984)).

[141] Neustar Comments at 52 (citing *Am. Mining Cong. v. Mine Safety Health Admin.*, 995 F.2d 1106, 1112 (D.C. Cir. 1993)).

[142] *See Am. Mining Cong.*, 995 F.2d at 1112 ("Accordingly, insofar as our cases can be reconciled at all, we think it almost exclusively on the basis of whether the *purported interpretive rule* has 'legal effect,' which in turn is best ascertained by asking (1) whether in the absence of the rule there would not be an adequate legislative basis for enforcement action or other agency action to confer benefits or ensure the performance of duties, (2) whether the agency has published the rule in the Code of Federal Regulations, (3) whether the agency has explicitly invoked its general legislative authority, or (4) whether the rule effectively amends a prior legislative rule. If the answer to any of these questions is affirmative, *we have a legislative, not an interpretive, rule*." (emphases added)); *see generally id.* at 1109-12.

Neustar further argues that Section 251 of the Communications Act requires that the selection of the new LNPA be done pursuant to notice-and-comment rulemaking.[143] This is plainly wrong. Specifically, Neustar claims that the "Commission's authority to designate an LNPA derives from a specific delegation of legislative power in the governing statute."[144] However, nothing in Section 251 or any part of the Communications Act compels the Commission to exercise all of its Section 251(e) authority over numbering and numbering administration through rulemaking. Neustar attempts to sidestep this fact by claiming that Section 251(b)(2), which "directs the Commission to establish requirements governing the provision of number portability," compels the conclusion that any Commission action done to this effect is "substantive rulemaking."[145] This argument is sorely misplaced—by its plain language, Section 251(b)(2) does not compel all decisions to be made by rulemaking but merely directs the Commission to establish rules such as those specifying the duties of carriers during the porting process. Further, had Congress chosen to require all decisions on number portability and LNPA administration to be done through rulemaking, it could have specified that the designation of the administrators be accomplished "by rule," but it did not do so.[146]

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[143] Neustar Comments at 53-54.

[144] *Id*. at 53.

[145] Neustar Comments at 53.

[146] *Cf., e.g.*, 47 U.S.C. § 251(h)(2) ("The Commission may, *by rule*, provide for the treatment of a local exchange carrier (or class or category thereof) as an incumbent local exchange carrier" under specified conditions) (emphasis added); *id.* § 220(a)(2) ("The Commission shall, *by rule*, prescribe a uniform system of accounts for use by telephone companies.") (emphasis added); *id.* § 339(c)(3)(A) ("Within 270 days after the date of the enactment of the Satellite Television Extension and Localism Act of 2010, the Commission shall develop and prescribe *by rule* a point-to-point predictive model for reliably and presumptively determining the ability of individual locations, through the use of an antenna, to receive signals in accordance with the signal intensity standard in section 73.622(e)(1) of title 47,

In a last-ditch effort to support its position, Neustar wrongly claims that a footnote in a Supreme Court opinion stands for the proposition that Section 251(e) requires the Commission to exercise rulemaking authority.[147] This position is unavailing because the footnote analyzed whether agency *action* was required or discretionary, not whether that action needed to be rulemaking.[148] Therefore, it is clear that nothing in the Act limits the Commission's broad discretion to determine whether to proceed by rulemaking or adjudication.[149]

B. The Commission Has Not Fixed the Identity of the LNPA in a Rule.

Neustar next argues that the identity of the LNPA is currently enshrined in a rule that can only be changed by informal rulemaking. Specifically, Neustar claims that the initial LNPA designations must have been a rulemaking, rather than an adjudication, because they were issued after notice and comment, because the Commission issued certain "Final Rules" as part of the same order, and because the Commission published the order in the Federal Register. Neustar's

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Code of Federal Regulations . . . .") (emphasis added); *id.* § 309(b)(2)(F) (permitting the Commission "by rule" to add categories of licenses that cannot be granted in fewer than thirty days).

[147] Neustar Comments at 53-54 (citing *AT&T Corp. v. Iowa Utils Bd.*, 525 U.S. 366, 383 n.9 (1999)).

[148] *AT&T Corp.*, 525 U.S. at 383 n.9 ("Section 251(e), which provides that '[t]he Commission shall create or designate one or more impartial entities to administer telecommunications numbering,' *requires* the Commission to exercise its rulemaking authority, as opposed to § 201(b), which merely authorizes the Commission to promulgate rules if it so chooses." (emphasis in original)).

[149] *Qwest Servs. Corp. v. FCC*, 509 F.3d 531, 536 (D.C. Cir. 2007); *see also Nat'l Cable & Telecomms. Ass'n v. FCC*, 567 F.3d 659, 670 (D.C. Cir. 2009) ("[T]he choice . . . between proceeding by general rule or by individual, ad hoc litigation . . . [is] primarily in the informed discretion of the administrative agency." (citing *SEC v. Chenery Corp.*, 332 U.S. 194, 203 (1947)).

position springs from a fundamental misapprehension of the adjudicative nature of the LNPA designation and is just wrong.

Indeed, none of these facts transform an adjudicative decision into a "rule." First, an agency is free to afford parties additional procedural rights such as notice and comment in an adjudication, and doing so does not turn an adjudication into rulemaking.[150] Nor is it dispositive that the Commission issued "Final Rules" in the order designating the LNPA or that it published the rules in the Federal Register. The D.C. Circuit made that clear in *Goodman v. FCC*, where it rejected essentially the same argument that Neustar makes here.[151] In *Goodman*, petitioners argued that an order issued by the Commission was a rulemaking because it (1) affected a large number of individuals; (2) was subject to notice and comment; and (3) was published in the Federal Register under the label "Final Rules." The D.C. Circuit rejected that argument and instead focused on the substance of the order itself, noting that these factors did "not alter the clearly adjudicatory nature of the Order itself."[152] What *Goodman* makes clear, and what Neustar continues to ignore, is that it is the *substance* of the Commission's action rather than the particular procedures that define the action. As discussed above, the initial selection of the

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[150] *See Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.*, 435 U.S. 519, 524 (1978) ("Agencies are free to grant additional procedural rights in the exercise of their discretion.").

[151] 182 F.3d 987, 994 (D.C. Cir. 1999).

[152] *Id.*; *see also Adams Telcom, Inc. v. FCC*, 997 F.2d 955, 956-57 (D.C. Cir. 1993) (finding the FCC's characterization of its actions in denying pioneer preference as an adjudication was reasonable even though the proceeding was entitled *Amendment of the Commission's Rules*, the order was part of a rulemaking proceeding, and the order repeatedly refers to "this rulemaking").

LNPA was about the suitability of specific entities to be the next LNPA and, therefore, was a classic adjudication. It remains so today.

Moreover, the fact that the Commission began the proceeding with an NPRM does not mean that each portion of its final decision is a "rule." Indeed, the D.C. Circuit has held that it is permissible for an agency to issue an NPRM and then decide some of the issues raised in that NPRM by rule while deciding other issues by adjudication.[153] This is what the Commission did in the initial LNPA selection: it included an adjudicative decision in a proceeding that also promulgated rules. This, of course, does not transform the adjudicative decision into a rule.

Nevertheless, Neustar also argues that the Commission tied its hand by enacting 47 C.F.R. § 52.26(a), which states that "[l]ocal number portability administration shall comply with the recommendations" in NANC's April 25, 1997 report, one of which was to name Neustar's predecessor as the LNPA for four of seven regions. Because the 1997 SWG Report is incorporated into the Code of Federal Regulations, Neustar argues that *every part* of the report—including the selection and identification of the LNPA—is a legislative rule that can be modified only by rulemaking.[154] The law, however, rejects such formalism.

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[153] *Qwest Servs. Corp.*, 509 F.3d at 536 (finding nothing improper when an agency, after issuing notice of proposed rulemaking, bifurcated the proceeding into an adjudication and a rulemaking and thus acted by "half rulemaking and half adjudication").

[154] Neustar also argues that "the rule barring selection of any entity with a direct material financial interest in a manufacturer of telecommunications network equipment or its affiliate to serve as an LNPA cannot be changed without a notice-and-comment rulemaking." Neustar Comments at 60. This is a non-sequitur and is merely a continuation of its incorrect assertion that Telcordia is actually Ericcson and has such a direct material financial interest. This argument is thoroughly discredited in Section I.B.1.

An agency's decision to publish an item in the C.F.R. does not automatically transform that action into a "legislative rule" that can be modified only be rulemaking. This is especially true in a case like this where the Commission incorporated by reference a long document that includes both rules (such as number portability requirements) and adjudicatory components (such as the selection of the LNPA, as discussed above). Indeed, the D.C. Circuit has made clear that an agency's decision to publish something in the C.F.R. is little more than "a snippet of agency intent" and is not dispositive on the issue of whether an agency action is a legislative rule.[155]

Furthermore, it bears emphasis that the Commission's past practice is entirely inconsistent with the idea that the LNPA's identity has been fixed in a rule. Although the Commission initially designated Perot Systems, Inc. as one of the initial LNPA vendors, Perot defaulted on the contract and the Commission designated Neustar to replace it *without* seeking notice and comment or the other requirements of informal legislative rulemaking. And Neustar recognizes as much in its comments—it notes that the "Commission adopted the NANC's recommendation and endorsed this substitution" without any other process.[156] Had the Commission (or Neustar) intended for the LNPA designation to be a rule, it could only have selected Neustar to replace Perot by notice-and-comment rulemaking—it did not.

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[155] *Health Ins. Ass'n of Am., Inc. v. Shalala*, 23 F.3d 412, 423 (D.C. Cir. 1994) ("In none of the cases citing the distinction, however, has the court taken publication in the Code of Federal Regulations, or its absence, as anything more than a snippet of evidence of agency intent.").

[156] Neustar Comments at 60.

In addition, it comports with common sense to interpret the *Second Report and Order*[157] as adopting legislative rules establishing criteria for the LNPA selection and then adjudicating the appointment of the LNPA against those criteria. Requiring a rulemaking to replace an LNPA that has defaulted on its contract would create an inordinately inflexible situation, and it does not make sense to read into the Commission's actions an intent to create extreme, unworkable rigidity where the record reflects no such expression of intent.

Finally, even if the identity of the LNPA were established by a legislative rule, the APA exempts certain matters such as contracts from notice and comment requirements, including any matters relating to "public property, loans, grants, benefits, or contracts."[158] Because requiring further notice and comment at this late stage would harm the public interest in competition and the integrity of the bidding process,[159] there is no reason, and certainly no requirement, to issue another NPRM.

C. The Public Has Had Ample Opportunity to Comment on These Proceedings and the Public Notice Is Sufficient.

Although the Commission has no legal obligation to put the NANC recommendation out for public notice and comment, the Commission has provided the public ample opportunity to comment on the process. Indeed, the nearly five-year long process[160] has involved notice and comment in the selection recommendation process, the terms of the Request for Proposals,

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[157] *Telephone Number Portability*, Second Report and Order, FCC 97-289, 12 FCC Rcd. 12,281 (1997).

[158] 5 U.S.C. § 553(a)(2).

[159] *See* Letter of John Nakahata, Counsel for Telcordia, to Marlene Dortch, Secretary, FCC at 6-7, CC Docket No. 95-116, WC Docket Nos. 07-149 & 09-109 (filed May 9, 2014).

[160] *See* USTIA/CTIA Comments at 3-4.

Vendor Qualification Statement, and Technical Requirements Document.[161] "[A]t each stage, service providers, state regulators, consumer advocates, and industry organizations filed comments contributing to the [Commission's] deliberative process."[162] And finally, the Commission sought additional public input on NANC's recommendation that Telcordia serve as the next LNPA.[163] That notice clearly stated the issue before the Commission, sought comment on the NANC's recommendation, and gave interested parties yet another opportunity to provide input.

Thus, despite Neustar's arguments to the contrary,[164] the Commission has provided interested persons an opportunity to participate in this adjudicative process. And further, Neustar's arguments relating to the supposed insufficiency of the Public Notice would only apply if the LNPA selection was an exercise of rulemaking authority.[165]

III. THE COMMISSION CAN AND SHOULD RELY ON THE NANC RECOMMENDATION, WHICH WAS THE RESULT OF A SELECTION PROCESS SUPPORTED BY NEUSTAR, APPROVED BY THE COMMISSION, AND PROPERLY EXECUTED BY THE FONPAC AND THE NANC.

In its comments, Neustar raises a host of alleged problems with the process by which the FoNPAC and the NANC made their recommendations—all in an effort to convince the Commission to second-guess the consensus of the industry and the Commission's expert,

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[161] *See id.* at 5-6.

[162] *Id.* at 5.

[163] *Commission seeks Comment on the North American Numbering Council Rec. of a Vendor to serve as a Local Number Portability Administrator*, Public Notice, DA 14-794, 29 FCC Rcd. 6013 (2014) (Wireline Comp. Bur.).

[164] Neustar Comments at 54, 61-62.

[165] *See* 5 U.S.C. § 553(b) (discussing requirements for "[g]eneral notice of proposed rule making").

balanced advisory committee. Neustar complains that the selection process, "as framed by the Bureau and executed by the NANC and the FoNPAC, had no direct precedent and no clear rules, and was plagued by uncertainty and unfairness."[166] It complains about how the NANC and the FoNPAC administered that process. And it complains about the substance of the reports prepared by the FoNPAC and the SWG ("Selection Reports"). All of these complaints are meritless. As explained below, the recommendations resulted from a well established process that Neustar supported and that the Commission approved. That process was administered fairly and appropriately by the NAPM and the NANC, with advice from ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** The NANC and the FoNPAC created a detailed report containing the reasons for the industry's consensus that Telcordia was the best choice. As a result, the Commission can and should give substantial weight to the NANC's recommendation. Indeed, to do otherwise would be arbitrary and capricious.

A. The Selection Process Was Supported by Neustar and Approved by the Commission.

Throughout its comments, Neustar makes numerous objections to the selection process itself, complaining that it "had no direct precedent and no clear rules."[167] Among other things, it complains that "detailed numerous services it currently provides as the LNPA were missing from or inadequately described in the RFP."[168] The Commission should reject this last-ditch effort to secure a redo. Neustar had the opportunity to object to the process and the bid documents when

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[166] Neustar Comments at 65.

[167] Neustar Comments at 65.

[168] *Id.* at 87.

the Commission put them out for public notice and comment years ago. It failed to raise any objections then and actually urged the Commission to move forward with the proposed process. Having supported the LNPA selection process, Neustar cannot now complain about it. It has waived any right to object to the process.

1. Neustar Had the Opportunity to Raise Any Objections to the LNPA Process.

Before approving the proposed selection process and the proposed solicitation documents, the FCC put both proposals out for notice and comment. In March 2011, the FCC put the consensus selection-process proposal out for public notice and comment.[169] In response, Telcordia submitted comments urging the Commission to make a number of amendments to the proposed process in order to make the process more open and transparent and to ensure that the membership of the SWG would be balanced "both between industry and state utility commissions/consumer advocates and between entities that are members of NAPM and those that are not."[170] Neustar, however, did not file any comments in response to the Commission's request and, following Telcordia's comments, filed reply comments criticizing Telcordia for commenting on the consensus proposal: "Neustar does not believe that it is appropriate for potential respondents to the NAPM LLC/NANC request for proposal ('RFP') to put forward changes to the Consensus Proposal by which a vendor will be recommended to the

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[169] *Petition of Telcordia Technologies Inc. to Reform or Strike Amendment 70, to Institute Competitive Bidding for Number Portability Administration and to End the NAPM LLC's Interim Role in Number Portability Administration Contract; Telephone Number Portability*, Order and Request for Comment, DA 11-454, 26 FCC Rcd. 3685 (Wireline Comp. Bur. 2011) ("*March 2011 Order*").

[170] Comments of Telcordia Technologies, Inc., at 2-3, WC Docket Nos. 07-149 & 09-109, CC Docket No. 95-116 (filed Mar. 22, 2011).

Commission."[171] At that time, Neustar further argued that the LNPA contract was merely a "private contract" between the NAPM and the LNPA vendor and that all affected entities "are eligible to become members of the NAPM LLC."[172] Neustar therefore argued that because "the entities that pay the vast bulk of the NPAC's costs are represented through NAPM LLC membership," this creates "a significant incentive for the NAPM LLC to ensure that the NPAC is run as efficiently and pro-competitively as possible."[173] In light of the general support for the consensus proposal, the Commission ultimately adopted it with only a few modifications.[174] Under the process announced by the Commission, the NAPM, with oversight and approval by the NANC, was to develop solicitation documents, which would then be approved or rejected by the Commission.

The solicitation documents were also developed jointly by the NANC and NAPM according to the Bureau-approved selection process. And before approving them, the FCC also put drafts of these documents out for notice and public comment.[175] Once again, the industry—and particularly Neustar—generally supported the draft documents. In its comments, Neustar

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[171] Reply Comments of Neustar, Inc., at 2 WC Docket No. 09-109, CC Docket No. 95-116 (filed Mar. 29, 2011) ("Neustar Mar. 29, 2011 Reply Comments").

[172] *Id.* at 3.

[173] *Id.*

[174] *Petition of Telcordia Technologies Inc. to Reform or Strike Amendment 70, to Institute Competitive Bidding for Number Portability Administration and to End the NAPM LLC's Interim Role in Number Portability Administration Contract; Telephone Number Portability*, Order, DA 11-883, 26 FCC Rcd. 6839 (Wireline Comp. Bur. 2011) ("*May 2011 Order*").

[175] *See Wireline Competition Bureau Seeks Comment on Procurement Documents for the Local Number Portability (LNP) Administration Contract*, Public Notice, DA 12-1333, 27 FCC Rcd. 11,771 (Wireline Comp. Bur. 2012).

praised the solicitation, characterizing it as "generally well designed."[176] Neustar also praised the process adopted in the *May 2011 Order*, opining "[t]his process, which provides the proper balance between technical and business experience of the NAPM LLC's FoNPAC, with broader involvement from the NANC's Selection Working Group . . . and oversight from the Commission, will ensure that the bidding process will provide the industry and consumers the benefits of robust competition."[177] And although Neustar initially suggested some minor modifications to the RFP,[178] it ultimately waived those objections when, in January 2013, it told the FCC that it should "proceed … to approve the RFP Documents as drafted."[179] In part based on Neustar's support, the Commission ultimately approved the RFP documents with certain modifications.

2. Neustar Waived Any Objections to the RFP Process.

The doctrine of waiver, as articulated by the Commission, does not permit Neustar to belatedly object to a process that it not only willingly participated in but also endorsed. In *Community Teleplay*, the Commission found that "a party with sufficient opportunity to raise a challenge in a timely manner, but who fails to do so, is deemed to have waived the challenge and is precluded from raising it in subsequent proceedings."[180] In that case, winning bidders in an auction petitioned the Commission for relief after they were deemed ineligible to use a bidding

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[176] Comments of Neustar, Inc., at 2, WC Docket Nos. 09-109 & 07-149, CC Docket No. 96-116, (filed Sept. 13, 2012) ("Neustar Sept. 13, 2012 Comments").

[177] *Id.* at 2-3.

[178] *See* Neustar Sept. 13, 2012 Comments at 18-20.

[179] Neustar Jan. 11, 2013 Letter at 1.

[180] *Community Teleplay, Inc., et al.*, 13 FCC Rcd. 12,426, 12,428 ¶ 5 (Wireless Telecomm. Bur. 1998) ("*Community Teleplay Order*").

credit toward their conditionally granted licenses. The Commission denied their petition, noting that the petitioners had the opportunity to file comments on the bidding credit rule in the relevant proceeding; that they had the opportunity to petition for reconsideration once the rules were adopted; and that they could have raised their constitutional claim at the conclusion of the auction. Because they took none of those actions, the Commission found that they had waived the opportunity to raise the issue at the time of the petition.[181]

Neustar, like the petitioners in *Community Teleplay*, has had numerous opportunities to object to what it now opportunistically characterizes as a "deeply flawed"[182] process. Rather than raise its objections at the appropriate times when public comment was sought during the three years that the LNPA selection process has been underway, it repeatedly endorsed that process and worked to ensure the process would proceed without delay:

- In 2011, Neustar praised the NANC for its work in developing the Consensus Proposal and stated that it "intend[ed] to participate in the LNPA selection process set out in the Consensus Proposal."[183]

- In 2012, Neustar noted that the "Commission has consistently relied on NANC and NAPM to design and implement LNP," that the "Consensus Process follows that model," and that "Neustar supports the consensus process, and wants to ensure that it goes forward without delay."[184]

- Also in 2012, Neustar filed an ex parte in which it "urged the Commission to continue to allow the process outlined in May 2011 to continue. All interested parties have been moving forward pursuant to this process and it has been proceeding well. Delaying the

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[181] *Community Teleplay Order*, 13 FCC Rcd. at 12,428-9 ¶¶ 5-6.

[182] Neustar Comments at 2.

[183] Neustar Mar. 29, 2011 Reply Comments at 2.

[184] Letter from Aaron Panner, Counsel for Neustar, to Marlene H. Dortch, Secretary, FCC, Attachment at 2, WC Docket Nos. 07-149 & 09-109, CC Docket No. 95-116 (filed Mar. 9, 2012) ("Neustar Mar. 9, 2012 Letter"); *see also id.* at 1 ("Neustar supports the consensus process and would like to see it go forward without delay.").

process at this point would be counterproductive for the Commission, for the industry, for bidders and for consumers."[185]

- And later that year, Neustar commented that "[t]he RFP process established by the Federal Communications Commission … is generally well designed to achieve [the three fundamental] goals [of the selection [process]."[186] Neustar's comments, generally endorsed the selection process while seeking assurances that the FoNPAC would be free to provide any necessary clarifications in order to "help to avoid delays and to keep the RFP process on track."[187]

- And as recently as 2013, Neustar asserted that "the industry has the correct incentives to design and implement the RFP process to ensure that the LNP administrator continues to deliver service of the highest quality and value….The best and most legally defensible way for the Commission to proceed is to approve the RFP Documents as drafted and to allow the process to move forward."[188]

Furthermore, over the course of the last three years, Neustar never petitioned for reconsideration or filed any application for review of any Bureau decision with respect to (i) the Bureau's authority to select the LNPA, (ii) the structure of the procurement process, (iii) the contents of the RFP, or (iv) Bureau consent to changes in the time for the submission of initial bids. It was not until 2014, when Neustar had apparently come to believe that it would not be re-awarded the LNPA contract, that Neustar announced its multiple objections to the LNPA selection process. At that time, it attempted—and failed—to vacate the LNPA selection process via an untimely petition for declaratory ruling.[189] Just as in that failed attempt, Neustar's

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[185] Letter from Aaron M. Panner, Counsel, Neustar, to Marlene H. Dortch, Secretary, FCC, at 6, CC Docket No. 95-116, WC Docket Nos. 07-149 & 09-109 (filed Sept. 11, 2012) (internal citation omitted).

[186] Neustar Sept. 13, 2012 Comments at 1-2.

[187] *Id.* at 2.

[188] Neustar Jan. 11, 2013 Letter at 1.

[189] *See* Petition of Neustar for Declaratory Ruling Concerning The Local Number Portability Administration Selection Process, CC Docket No. 95-116 and WC Docket No. 09-109 (filed Feb. 12, 2014) ("Neustar Declaratory-Ruling Petition").

comments here seek to rewrite history—and gloss over its own willing participation in (and endorsement of) the selection process.

Nor is this analysis limited to an administrative proceeding such as this. Though there is general agreement that the LNPA selection process is not a procurement subject to FAR, under federal procurement law it is also true that where a party "has the opportunity to object to the terms of a government solicitation containing a patent error and fails to do so prior to the close of the bidding process," that party "waives its ability to raise the same objection afterwards."[190] Neustar, in other words, even under the law governing federal procurement, was obligated to raise any protest to the competition *prior to the close of the bidding process*. Neustar made no such challenge. And it has not put forward an argument as to why, notwithstanding the practice under the FAR, it would be reasonable to allow Neustar to raise objections to the selection process or the content of the procurement documents that it could have raised at the time comments were solicited. Indeed, accommodating Neustar's objections at this point would create clear prejudice, because other offerors would not have been on notice of system dimensions that Neustar knew, but did not disclose, and thus did not get incorporated in the procurement documents.

Neustar's multiple attempts at a *post hoc* challenge to the LNPA selection process are little more than attempts to obtain a second bite at the apple—a second bite that is not permitted by either the Commission's own precedent on waiver, or by analogous procurement law. The Commission should not countenance these attempts.

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[190] *Blue and Gold Fleet, L.P. v. United States*, 492 F.3d 1308, 1315 (Fed. Cir. 2007).

B. The Selection Process Was Administered Fairly and Appropriately.

The comments demonstrate that the selection process advocated by Neustar and approved by the Commission was efficient, fair and exhaustive. The NANC, NAPM and their working groups "expended enormous time and resources, including technical, engineering, operational and other substantive expertise."[191] They conducted "hundreds of meetings and thousands of hours of review, analysis, evaluation and consultation."[192] The USTA/CTIA comments catalogue "the careful process followed" pursuant to a Commission mandate.[193] The USTA and CTIA Comments list twenty-four (24) separate actions taken since the FoNPAC working group developed a draft RFI in 2011.[194]

Neustar, nevertheless, asks the Commission to disregard the results of the process on the basis of supposed irregularities in how it was administered. But all the clever advocacy in the world cannot change the fact that the LNPA selection process was fundamentally fair and reasonable. Neustar tries to manufacture a discrepancy between the decision to extend the proposal submission date and the decision not to obtain a second round of BAFOs. But no such discrepancy exists. Both decisions were plainly reasonable, and driven by a desire to ensure that the selection process was fair and did not unfairly prejudice either bidder.

As Neustar readily admits in its comments, the FAR does not govern the LNPA selection process, and thus the FAR "late-is-late" rule does not apply here.[195] The Commission's later

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[191] USTA/CTIA Comments at 15.

[192] *Id*.

[193] *See id*., at 13-15.

[194] *Id*.

[195] Neustar Comments at 72 ("FAR rules have no application to a private bid process.").

decision to consider an unrelated part of FAR for guidance on an unrelated matter does not change the fact—which Neustar recognizes—that FAR does not ***control***. Therefore, the only question before the FCC is whether the decision to extend the proposal submission date was reasonable. It plainly was: The RFP documents did not identify the 8 p.m. deadline for initial bid responses; Telcordia's proposal was uploaded onto the IASTA system prior to that deadline; and extending the proposal submission date could not result in an unfair competitive advantage to either offeror because the original proposal submissions were not circulated.

The decision not to obtain a second round of BAFOs was similarly reasonable. It was entirely reasonable for the Commission to look to the FAR for guidance. And there is no provision in either the RFP or the FAR that created any reasonable expectation of even one BAFO, let alone two. Moreover, the timing of Neustar's campaign for a second BAFO strongly suggests that it had learned nonpublic information that would give it an unfair competitive advantage. The decision not to seek a second BAFO was thus necessary to preserve the integrity and fairness of the competition, and to avoid the appearance of impropriety.

For all of these reasons, Neustar's complaints about the procurement process are meritless and should be disregarded.

1. The Decision to Extend the Deadline for Proposal Submission Was Reasonable and Caused No Prejudice to Neustar.

a. The Decision Was Reasonable.

The record demonstrates that the decision to extend the due date for proposals was both reasonable and well within the discretion of the FoNPAC and the SWG to conduct the LNPA procurement. The NAPM LNPA Vendor Selection Process Report explains that NAPM extended the due date ****BEGIN CONFIDENTIAL**** [redacted]

[redacted] ****END CONFIDENTIAL****. The Report outlines in detail ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Taken as a whole, the record confirms the reasonableness of NAPM's actions.

Telcordia ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** In response, NAPM conducted a careful investigation. NAPM's investigation confirmed that ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****). Thus, all the information was on the IASTA system.[198]

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[196] *See* Report of the North American Portability Management LLC in Response to the Wireline Competition Bureau Letter, dated February 11, 2014, at 26 (Mar. 20, 2014) ("NAPM Process Report") (attached to NANC Apr. 24 *Ex Parte* Letter).

[197] *See* NAPM Process Report at 27.

[198] Neustar fails to explain to the Commission that there is a critical exception to the FAR "late-is-late" rule: A proposal will not be rejected as late if "it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals. . . ." FAR 15.208(b)(1)(ii). Because, as NAPM's investigation found, ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

After conducting its investigation, the NAPM also ****BEGIN CONFIDENTIAL****

[redacted] ****END CONFIDENTIAL**** NAPM updated the public section of the website pertaining to the RFP with a message to all bidders that the period to submit survey responses had been extended. NAPM also reached out individually to both Neustar and Telcordia to inform them of the extension and corresponding resubmission process.

This record confirms that NAPM responded reasonably to Telcordia's inquiry, conducted a thorough investigation prior to making any decision, and ultimately decided to extend—with the FCC's consent—the due date for proposals. Each of these actions was within the NAPM's discretion in conducting the competition to ensure equal treatment and rectify an otherwise potentially ambiguous RFP provision. On this record, there is no basis to question the NAPM's decision.

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[199] *See* NAPM LNPA Vendor Selection Process Report at 88 (Attachment 3).

b. The Decision Caused No Prejudice to Neustar.

Moreover, Neustar fails to identify any possible prejudice flowing from the decision to extend the deadline for proposal submission. Both offerors were treated the same, and given the same extension. Neither offeror's initial submission ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Accordingly, there is no basis to conclude that Neustar was in any way prejudiced by the NAPM's decision to extend the due date for proposals to all offerors.

As the report correctly notes, ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** As such, both Neustar and Telcordia were equally able to submit revised proposals by the revised due date.

Moreover, the report confirms—contrary to Neustar's prior allegations—that the FoNPAC ****BEGIN CONFIDENTIAL**** [redacted]

[redacted] ****END CONFIDENTIAL****[202]

NAPM further responded to similar concerns regarding the review of proposals on May 15, 2013, when ****BEGIN CONFIDENTIAL**** [redacted]

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[200] *See* NAPM Process Report at 26.

[201] The Report timeline confirms that ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** *See id*., at 32.

[202] NAPM LNPA Vendor Selection Process Report at 34.

[203] *See id*. at 35.

[redacted] ****END CONFIDENTIAL**** Neustar thus could not have suffered any competitive prejudice from the extension. Nor does it try to argue otherwise.

Neustar nonetheless insists that NAPM and FoNPAC should have rejected Telcordia's proposal, leaving Neustar in the catbird seat as the sole offeror. Of course it does. But ***that outcome*** would have been unreasonable and unfair. As the investigation found, ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** And it would have robbed the Commission, the carriers, and consumers of the benefit of robust competition, leaving them locked in Neustar's usurious sole-source embrace. Such an outcome would have been indefensible.

2. The Decision Not to Solicit Second BAFOs Was Reasonable and Caused No Prejudice to Neustar.

****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Neustar tried to derail the LNPA selection process by submitting an unsolicited second BAFO, and browbeating the FoNPAC to accept it. ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

Neustar musters just two complaints about the decision. First, Neustar asserts that ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** But there was nothing improper about using the FAR for guidance (rather than as a binding requirement), as part of a determination as to the reasonable course of conduct. Second, Neustar asserts that the RFP and the FAR created an expectation that a second round of BAFOs would occur. But even a cursory review of the RFP and the FAR shows that Neustar is incorrect.

a. The Decision Not to Obtain Second BAFOs Was Reasonable.

The NAPM Vendor Selection Process Report confirms that ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** when determining how to respond to Neustar's unsolicited second BAFO.[204] Based on the collective analysis derived from this process, the NANC chairman ultimately concluded ****BEGIN CONFIDENTIAL**** [redacted]

[204] *See id*. at 5-6.

[205] *Id*.

[redacted] ****END CONFIDENTIAL**** There was nothing irrational about consulting such principles as a touchstone for reasonableness and as an additional point ****BEGIN CONFIDENTIAL**** [redacted]

[206] *See id.* at Attachment 4 (e-mail from ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** at 95-96 of PDF file).

[207] *Id.* at 94-95.

[redacted] ****END CONFIDENTIAL****

In sum, ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** and concluded that a second BAFO was unnecessary and that rejection of Neustar's unsolicited bid was the best course of action to ensure that the selection process remained fair and impartial. That decision was reasonable, and there is no basis to question it.

b. Neustar Had No Right to a Second BAFO.

Both the express language of the RFP and the announced timeline for the LNPA RFP put all offerors on notice that the award might be made on the basis of initial proposals without any BAFOs at all. The RFP informed offerors that

> selection of the LNPA will be made ***without the requirement of discussions*** or interviews, but discussions and interviews may be held if desired by the FoNPAC. ***All Respondents are encouraged to submit their best proposal***; each Respondent's proposal in response to this RFP survey should contain the Respondent's best terms from a technical, management, and cost standpoint, as outlined in Section 14.1.1.[209]

This language advised all offerors to submit their best proposal out of the gate, because the FoNPAC might not open discussions and request even a single BAFO. Thus, the RFP language on which Neustar relies—RFP § 13.6—confirms that all offerors knew that there might be ***no*** opportunity for proposal revisions, and the decision on whether to request BAFOs rested in the

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[208] *Id*.

[209] RFP § 14.1 (emphasis added).

sole discretion of the FoNPAC.[210] Neustar thus had no reasonable expectation of even one BAFO, let alone two.[211]

Further, the very name of the process—Best and ***Final*** Offers—advised Neustar that it should not expect a second chance. And on top of that, the RFP's announced timelines for award put all offerors on notice that the FoNPAC might not request ***any*** BAFOs. The RFP called for submission of proposals in April 2013 and contemplated selection of an awardee by August 5, 2013.[212] Under this schedule, it would be difficult to obtain and evaluate even a single BAFO, and impossible to conduct multiple BAFOs. (Indeed, in its discussions of the possibility of a BAFO with the FoNPAC in August 2013, Neustar observed that "[i]t may be getting late" for even one BAFO.[213]) Even after extending the timeline and soliciting BAFOs, the FoNPAC's announced timeline put all offerors on notice that another round of BAFOs was unlikely, as did the statements of counsel for the NAPM, who told Neustar that the NAPM intended to "come back out with *a* BAFO."[214] BAFOs were submitted on September 18, 2013. Meanwhile, the FoNPAC informed offerors that it anticipated recommending an awardee by November 14, 2013.

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[210] *See also* LNPA Procurement Presentation and Q & A in Denver, Colorado, Neustar, Inc. Transcript at 100:2-3 (Aug. 7, 2013) ("Neustar Transcript").

[211] Neustar also relies on the RFP's statement that "competition will be used to determine price reasonableness." Neustar Comments at 72 (citing RFP § 13.4). But that RFP language was satisfied when the two offerors submitted their initial proposals, allowing the FoNPAC to compare the prices of those proposals to determine reasonableness. Nothing in the RFP language states or suggests that the FoNPAC will engage in multiple BAFOs.

[212] RFP § 16.1.

[213] Neustar Transcript at 186:17; *see also id.* at 203:6-11 (noting that any BAFO would request that Neustar "come back with your best offer").

[214] *Id.* at 203:6-11 (Aug. 7, 2013) (emphasis added).

Given this timeline, it would be patently unreasonable for any offeror to expect an ***additional*** round of BAFOs.[215]

The FAR and sound procurement practices also refute Neustar's claim that it was entitled to a second BAFO. Like the RFP here, the standard FAR clause instructing offerors in competitive procurements advises them that the agency intends to make award without discussions or proposal revisions.[216] Like the RFP here, that clause therefore informs offerors that "the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint."[217] Although the procuring agency retains the discretion to conduct discussions, an offeror has no basis to expect that it will have the chance to revise its proposal. Moreover, where an agency does conduct discussions and obtain proposal revisions, the same principle holds true—the decision to conduct a single round of discussions does not create any reasonable expectation that a second round will occur. There simply is no FAR requirement for multiple rounds of BAFOs, and Neustar fails to point to any such requirement. In short, the FAR—like the RFP—gives the agency the discretion to decide whether to have one BAFO, let alone multiple BAFOs. The FoNPAC and NANC rationally exercised that discretion here. Nothing entitled Neustar to another bite at the apple.

Finally, Neustar's own prior statements show that it did not expect multiple rounds of BAFOs, and in fact believed such a course would be inappropriate and unnecessary. Neustar's November 6, 2012 *Ex Parte* filing flatly rejected the need to mandate the solicitation of multiple

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[215] ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

[216] *See* FAR 52.215-1(f)(4).

[217] *See id*.

best-and-final offers, stating that "as Neustar has explained previously, in a confidential RFP process, there is no reason to mandate the solicitation of multiple best-and-final offers."[218] Similarly, in its presentation to the FoNPAC in August 2013, Neustar acknowledged that a BAFO was merely something that the "RFP put . . . forward as an option" and that the opportunity to submit additional offers was available only if there were a "request from the FoNPAC."[219] For all of these reasons, Neustar's claim that it expected a second round of BAFOs falls flat.

c. Neustar's Actions Strongly Suggest that It Had Access to Inside Information.

Although the efforts by the FoNPAC, SWG Tri-Chairs, and NANC Chairman are beyond reproach, the same cannot be said of Neustar's conduct in the timeframe between its ****BEGIN CONFIDENTIAL**** [redacted]

[218] Letter from Aaron Panner, Counsel, Neustar, to Marlene Dortch, Secretary, FCC, at 5 n.11, WC Docket Nos. 07-149 & 09-109, CC Docket No. 95-116 (filed Nov. 6, 2012).

[219] LNPA Procurement Presentation and Q & A in Denver, Colorado, Neustar, Inc.,Transcript 185-186 (Aug. 7, 2013).

[220] *See* NAPM Process Report at 46.

[221] *Id.* at 60-61.

[redacted]

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As illustrated above, the timing of Neustar's second BAFO submission, and ensuing campaign, is highly suspect. ****BEGIN CONFIDENTIAL**** [redacted]

[222] *See id.* at 46. Interestingly, the NAPM LNPA Vendor Selection Process Report notes that certain FoNPAC members were in favor of a second BAFO prior to selecting Telcordia.

[223] *Id.* at 6.

[redacted] ****END CONFIDENTIAL**** the record strongly suggests that Neustar was working with inside

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[224] *Id.*

[225] *See* NAPM LNPA Vendor Selection Process Report at 51-52 (discussing Aaron Panner's November 4, 2013 submission).

[226] *Id.* at 61.

[227] *Id.* at 3.

information from an as-yet unidentified source. Neustar's aggressive conduct is no mere coincidence, and it militates against any second round of BAFOs.

Throughout its comments, Neustar chastises the Commission for supposedly not following sound federal procurement practices. But let there be no doubt: Had this been a federal procurement—or had the Commission applied federal procurement statutes or regulations—Neustar could and should have been disqualified from the competition altogether. First, Neustar's receipt of non-public information regarding the LNPA procurement would constitute a blatant violation of the Procurement Integrity Act ("PIA").[228] The PIA expressly prohibits an offeror from knowingly obtaining contractor bid or proposal information or source selection information before the award of a Federal agency procurement to which the information relates.[229] This prohibition applies to any person, such as contractor personnel, and Neustar's apparent receipt of information regarding the FoNPAC's recommendation of Telcordia before any public announcement had been made would constitute a clear violation of that statute.

Moreover, had this been a FAR-covered procurement, Neustar's unsolicited BAFO would run afoul of the instructions to offerors under FAR 52.215-1(c)(7). That provision states that "offerors may submit revised proposals ***only if requested or allowed by the Contracting Officer.***"[230] In stark contrast to this requirement, Neustar did not wait for a request from FoNPAC or other authorization before submitting its second BAFO. ****BEGIN CONFIDENTIAL**** [redacted]

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[228] *See* 41 U.S.C. §§ 2101-2107.

[229] 41 U.S.C. § 2102(b).

[230] FAR 52.215-1(c)(7) (emphasis added).

[redacted] ****END CONFIDENTIAL**** Had the Commission been applying FAR principles, it could have rejected the submission outright and immediately upon receipt under this clause.

As this discussion shows, the decision not to entertain a second round of BAFOs was unassailably reasonable. Any other decision would have cast irreparable doubt on the fairness and integrity of the LNPA selection process.

C. The Selection Reports Appropriately Explain the Justification for the NANC's Recommendation.

Aside from its criticisms of the process, Neustar also raises a litany of supposed shortcomings with the NANC and the FoNPAC selection reports. It criticizes the length of the reports and claims that the reports did not adequately address relevant factors. These objections are meritless. As explained below, the NANC Report and its attachments sufficiently explain the reasons for the NANC's conclusions.

1. The Recommendation Properly Addresses Pricing.

At several points in its comments, Neustar argues that the recommendation ignores technical and management criteria in favor of price.[231] This argument, yet again, mischaracterizes the recommendation and ignores its actual scores and findings. ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

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[231] *See, e.g.*, Neustar Comments at 82-84.

[232] SWG Selection Report at 2.

After "a painstakingly diligent and comprehensive review,"[233] it was clear that ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL** **BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

Moreover, ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** As USTA and CTIA, whose members include a wide and diverse sector of the industry, point out in their comments, "[T]he users of the NPAC/SMS LNP database have experienced rapidly escalating assessments of the last decade; indeed costs have more than doubled since 2005.[237] [O]ur members—and ultimately all voice customers—are the ones paying this sizeable bill."[238] USTA and CTIA further state that "[t]he industry overwhelmingly hopes

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[233] USTA/CTIA Comments at 2.

[234] FoNPAC Selection Report at 3.

[235] *Id*.

[236] *Id*.

[237] USTA/CTIA Comments at 19.

[238] *Id*.

that a new LNPA . . . will drastically reduce these escalating costs."[239] This is attention to cost is consistent with the Commission's precedent, which recognizes that "Costs are important, particularly to the carriers that will bear larger shares of the costs for numbering administration."[240] Thus, in the context of selecting the NANPA, the Commission has held that the NANC properly considered a price differential of $22 million to be "an important factor" in its selection recommendation.[241] ****BEGIN HIGHLY CONFIDENTIAL****

****END HIGHLY CONFIDENTIAL****

Ignoring this Commission's precedent, Neustar cites cases decided under the FAR,[242] which it concedes do not apply here. But even if these cases applied, they do not support Neustar's argument. For example, in *PharmChem Labs, Inc*., the decision notes that the vendors, ****BEGIN CONFIDENTIAL**** ****END CONFIDENTIAL****, were far from technically equal.[243] The selected vendor in *PharmChem Labs*, had a significantly lowered technical score, accompanied by a much lower-priced offer.[244]

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[239] *Id*.

[240] *Warburg, Pincus Transfer Order*, 12 FCC Rcd. at 23,074-75 ¶ 65.

[241] *Id.*

[242] Neustar Comments at 85 n. 270.

[243] *PharmChem Labs., Inc.*, B-244385, 1991 WL 216281 at 3 (Comp. Gen. Oct. 8, 1991).

[244] *Id*.

Neustar also faults the recommendation for "ignoring Neustar's best BAFO pricing proposal," supposedly "exaggerating" the difference in price between its bid and Telcordia's bid and its bid.[245] But the NAPM and the NANC appropriately ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL** **BEGIN HIGHLY CONFIDENTIAL**** [redacted]

[245] Neustar Comments at 86-87.

[246] RFP § 13.4.

[247] *Id*.

[248] Neustar Bid, BAFO § 2.1 at 2 (Document No. 23 of Neustar production); *id.*, Price Factors § 3.1 at 3.0-10 (Document No. 5 of Neustar production) ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

[249] *Id.*, BAFO § 2.2 at 2 (Document No. 24 of Neustar production).

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****END HIGHLY CONFIDENTIAL**** during its meeting with the FoNPAC, counsel for NAPM asked Neustar to explain how its bid was compliant with "the RFP's flat-rate pricing requirement"[250] and asked Neustar, in response to a BAFO, whether it would consider submitting a price proposal "that's like a single element flat rate."[251]

In any case, ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

2. The Recommendation Appropriately Considered Transition Costs.

Neustar also argues that the Recommendation did not fairly consider transition costs. But the Recommendation explicitly notes that ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** and both the NANC and the FoNPAC reasonably concluded that ****BEGIN HIGHLY CONFIDENTIAL**** [redacted]

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[250] Neustar Transcript at 110:10-11 (Aug. 7, 2013).

[251] *Id.* at 112:4.

[redacted]

****END HIGHLY CONFIDENTIAL** **BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

Yet despite this reasonable assessment, Neustar now asks the Commission to second-guess the industry—apparently under the theory that transition costs must be higher than the ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****NeuStar's request that the Commission ignore the industry is ironic since Neustar's own bid acknowledged that "[t]he Industry understands better than anyone else that there is a lot at stake when contemplating a transition to another vendor for LNP administration."[253] It is also unrealistic. The RFP required respondents to meet and maintain the existing interfaces and business rules. For example, even after a vendor change, the interfaces between the NPAC and the gateway products on the carrier end will not change and the NPAC must support those interfaces.[254] Any issues in supporting the interfaces will be the LNPA's responsibility to correct—not the carriers' or the gateway vendors.[255] The business rules for porting have to comply with the RFP requirements and these must be met by the LNPA.[256] Those business rules include the FCC mandated porting times. The RFP also requires that the

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[252] SWG Selection Report at 4-5; *see also* USTA/CTIA Reply Comments at 6..

[253] Neustar Bid, Technical Factors Part 2, § 1.6 at 1.6-1 (Document No. 3 of Neustar production).

[254] *See* RFP § 12.3; *see also* TRD § 6.

[255] *See* RFP § 12.3.

[256] *See* TRD §§ 3-5.

methods and procedures for the NPAC and its users reviewed and agreed upon with the industry.[257] All of these factors ensure that carriers will bear reasonable one-time transition costs, which are offset by the ongoing savings.

****BEGIN HIGHLY CONFIDENTIAL****[redacted]

[257] *See* RFP § 13.4.

[258] *See, e.g.*, LNPA Procurement Presentation Q & A in Denver Colorado: Telcordia, Inc., Transcript at 55:3-4, 56:3-6, 15; 244:17-20; 246:11-249:7 (Aug. 7, 2013) (Telcordia Transcript).

[259] *See* Telcordia Bid, RFP, Attachment to Question 12.3 at 20-26 (Telcordia00155-Telcordia00161).

[260] *Id.*; Telcordia Bid, RFP, Attachment to Question 14.3 (Telcordia00332-Telcordia00333); Telcordia Bid, RFP, Attachment to Question 15.1 at 28-29 (Telcordia00264-Telcordia00265).

[261] Telcordia Bid, RFP § 12.3 at 20-22 (Telcordia155-Telcordia157).

[redacted] ****END HIGHLY CONFIDENTIAL****

In contrast, the greatly overstated transition-cost estimate relied on by Neustar does not take the RFP requirements, Telcordia's representations during the bidding process or the Recommendation's view of the industry's abilities into account.[263] The report assumes an extreme number of issues in the first year.[264] This assumption only works if a number of unlikely events all occur—for example, if the requirements are not stable, if recent changes are introduced, and if the industry does a poor job in accepting the new system. This outcome is unlikely ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

3. The Recommendation Properly Addresses the LNPA Transition, Quality of Service and the IP Transition.

Neustar also faults the recommendation for its treatment of transition "risks," quality of service, and the IP Transition, but these criticisms are also off the mark. The RFP required bidders to address all of these issues, and ****BEGIN CONFIDENTIAL**** [redacted]

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[262] *Id*.

[263] *See* Hal Singer, *Estimating the Costs Associated with a Change in Local Number Portability Administration* (Jan. 2014), *available at* http://www.ei.com/downloadables/SingerCarrierTransition.pdf (last accessed Aug. 7, 2014).

[264] *Id*.

[redacted] ****END CONFIDENTIAL**** Neustar, in an effort to conjure up flaws with the report, suggests that the FoNPAC should have required bidders to build systems and subject those systems to third-party testing and to make transition arrangements that would ordinarily be made only offer a contract award, but these suggestions are patently unreasonable and are nothing but transparent attempts to erect barriers to competition.

a. Transition to a New LNPA.

Neustar's argument paints the transition to a new LNPA as fraught with peril and risk that cannot be mitigated. As explained in more detail in Part IV, this is incorrect. Moreover, the recommendation adequately addresses the transition to a new LNPA. As Neustar states in its own comments, ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

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[265] FoNPAC Selection Report at 11.

[266] *Id*. at 12.

[267] SWG Selection Report at 4.

[268] *Id*.

Neustar argues that the Recommendation does not provide adequate analysis. However, Neustar does not and cannot state what additional analysis should be required. Any additional review of the transition requires the establishment of plan with industry review and collaboration. Until a LNPA is chosen, the industry and the potential vendors cannot craft a transition plan.

Neustar's focus on the transition plan reveals its intent to construct barriers to competition. Neustar, as the current LNPA, did not submit a transition plan because, as the current LNPA, it will not need a transition if it is selected.[269] The benefit of convenience, however, is no substitute for the benefits of competition. Telcordia submitted a plan that not only meets the necessary technical requirements, but also mitigates transition risk.

b. Quality of Service.

Neustar further complains that in evaluating Telcordia's bid, ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** This argument is nothing short of astounding—apparently suggesting that bidders should have been required to build a complete system and subject it to testing even in order to compete. While such a requirement might have helped Neustar by ensuring that no other vendor would submit a bid, it would have been patently unreasonable—and such a requirement was nowhere to be found in the RFP. Instead, the RFP required bidders to address quality-of-service issues in

[269] Neustar Bid, Technical Factors Part 2 § 1.6 at 1.6-3 (Document No. 3 of Neustar production) (noting that Neustar, as the incumbent, is not required to submit a transition plan).

[270] Neustar Comments at 88-89.

their submissions, and ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

Nor was there any reason for the FoNPAC or the NANC to question Telcordia's ability to meet the commitments made in its bid. Telcordia is actively involved in number portability and has developed large-scale software services to support Number Portability around the world. As Neustar admits in its comments, ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

Further, Telcordia recognizes the importance of disaster preparedness and ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

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[271] Neustar Comments at 88-89.

[272] *See, e.g.*, Telcordia Bid, RFP, Attachment to Question 15.1 § 2.2.1.1 at 15-18 (Telcordia00251-Telcordia00254); *id.*, App. B at 87-93 (Telcordia00323-Telcordia00329).

[273] *See, e.g.*, *id.*, TRD, Attachment to Question 12.1 § 4.1 at 12 (Telcordia08090-Telcordia08094).

The next LNPA, of course, will complete testing to validate quality of service. The testing, whether already in place or new testing, necessarily will be worked out with the industry.

****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

c. IP Transition Issues.

Neustar also attempts to invoke uncertainty around the IP Transition as an additional reason to second-guess the NANC's recommendation. This argument is also meritless. The LNPA elected by the Commission will have to conform to the industry solution for the IP Transition. That solution is yet to be settled.[278] This proceeding, in particular requirements in the RFP, is not the appropriate forum to resolve this issue or attempt to create an industry

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[274] *See, e.g.*, *id.*, RFP, Attachment to Question 12.3 at 12-16 (Telcordia00147-Telcordia00155).

[275] *Id*.

[276] Telcordia Bid, RFP, Attachment to Question 12.3 at 20 § 2.3.6.

[277] *Id*.

[278] *See* Neustar Declaratory-Ruling Petition at 18 (note in Petition of Neustar for Declaratory Ruling Concerning The Local Number Portability Administration Selection Process, CC Docket No. 95-116 and WC Docket No. 09-109 (filed Feb. 12, 2014).

standard.[279] As USTA and CTIA explained in their reply comments, "No party or commenter . . . has shown that the LNPA proceeding must be effectively suspended while the complex issues surrounding the IP transition play out."[280]

****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** the RFP, which required bidders to commit to the IP Transition as a requirement for the LNPA.[281] Section 7 of the RFP also required bidders to address the future evolution of the NPAC.[282] The RFP, however, appropriately did not set specific requirement for the IP Transition given the lack of a settled standard architecture and industry agreement. Neustar and Telcordia, given the uncertainty, are in a similar position to deal with the final decision.

Neustar criticizes Telcordia based on Ericsson "advocating in industry forums solutions that forgo use of the NPAC."[283] The statement misrepresents Telcordia's actions. Telcordia is not advocating against the NPAC as part of an IP-transition architecture. It has provided industry contributions that outline various alternatives to the NPAC *at the express request of carriers* so that the industry can make a more informed decision about the proper direction.

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[279] *Technology Transitions; AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition; Connect America Fund; Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Numbering Policies for Modern Communications*, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, FCC 14-5. 29 FCC Rcd. 1433 (2014) ("*Transition Order*").

[280] USTA/CTIA Reply Comments at 10.

[281] *See* RFP §§ 7.3, 12.3.

[282] RFP § 7.3.

[283] Neustar Comments at 90.

Neustar is well aware that the contributions have been made under those circumstances. It is also inappropriate to refer to the alternatives as Telcordia's or Ericsson's proprietary solutions. ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Telcordia's industry contributions have been evenhanded, addressing the benefits and weaknesses of any given architecture, and the industry community has been very receptive and appreciative of that transparency.[285]

Neustar states that it "provides universally accessible means for providers to exchange authoritative routing information from their next generation networks" and "[t]oday, supported by Neustar as the LNPA, service providers have already begun trialing solutions… to provide this function."[286] Neustar, however, fails to provide significant facts regarding this proposed solution. The IP fields in the NPAC that Neustar advocates using are free format data fields that could contain any data imagined. Very few service providers utilize these fields. And very few gateway vendors have implemented the fields in their systems. Neustar's proposed use of these fields would require that NPAC become a repository for all numbers in the North American

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[284] *See, e,g.*, iconectiv, *Utilization of Existing Industry Database Systems for the exchange of data to support Routing of E.164 Addressed Communications over IP Network-to-Network Interconnection (NNI)*, contribution to ATIS-SIP Forum IP-NNI Task Force forum (2012); iconectiv, *Utilization of the LERG™ Routing Guide as a Tier 1 ENUM Registry for Data Exchange to enable routing of E.164 Addressed Communications over an Internet Protocol (IP) Network-to-Network Interconnection (NNI)*, contribution to ATIS-SIP Forum IP-NNI Task Force forum (2014); inconnectiv, *Utilization of ENUM for exchange of data to support routing of E.164 Addressed Communications over IP Network-to-Network Interconnection (NNI)*, contribution to ATIS-SIP Forum IP-NNI Task Force forum (2014).

[285] *Id*.

[286] Neustar Comments at 90.

Numbering Plan and no longer serve as the exception database that it has been designed to be. This fundamental change in the purpose of the NPAC is a very significant step for the industry and should be made under more transparent circumstances with complete disclosure.

Neustar also implies that there will be no increased costs from its proposal.[287] This is incorrect. There will be increased costs in the carrier networks, if not from NPAC itself, as local systems require upgrades and very likely increased capacity as part of this architecture Neustar advocates in its comments.

Telcordia is actively involved in industry forums and fully committed to contributing its expertise and assets in whatever fashion the industry ultimately deems necessary.[288] By contrast, Neustar has not submitted any technical contributions in the industry forums and is not significantly engaged in any contribution other than one document that focusses on NPAC. The industry, ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

D. Reliance on the Selection Reports Does Not Create a Delegation Problem.

Neustar argues that the Commission cannot delegate the choice of LNPA to the NANC.[289] To the extent Neustar is correct, its argument has no relevance here. The Commission is authorized to "create or designate one or more impartial entities to administer

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[287] *See id.*

[288] Telcordia is involved in the NANC, FoN, ATIS PTSC and the joint ATIS/SIP Forum IP NNI taskforce. Telcordia is also co-Chair of the ATIS TOPS IP Service Interconnection Focus Group, which is evaluating the obstacles to true end-to-end rich IP services beyond basic voice.

[289] Neustar Comments at 63-64.

telecommunications numbering and to make such numbers available on an equitable basis."[290] The Commission permissibly delegated this authority to the Wireline Competition Bureau pursuant to 47 C.F.R. § 0.91. The Bureau then delegated to the NANC the role of recommending, *not ultimately choosing*, a new LNPA.[291] Indeed, the Commission specifically reserved for itself the ultimate choice of LNPA[292] following its own review of the record.

Regardless of whether the Commission could lawfully delegate the ultimate selection of the LNPA pursuant to Section 251(e), the Commission made clear in the June 9, 2014 Public Notice that it was not doing so, and that, consistent with the Bureau's May 2011 selection process order, it would make its own determination, taking into account the NANC's recommendation and the full record, of who the LNPA should be.[293] Specifically, in its 2014 Public Notice, the Commission referenced the record the NANC forwarded that included the

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[290] 47 U.S.C. § 251(e)(1).

[291] *March 2011 Order*, 26 FCC Rcd. at 3685, ¶ 1.

[292] *Id.* at 3688, ¶ 9.

[293] *See June 2014 Public Notice*; *see also March 2011 Order*, 26 FCC Rcd. at 3688 ¶ 9 ("Once the NANC/NAPM submits its bidder recommendations, the Commission—or Bureau acting on delegated authority—will select the vendor(s) to serve as the LNPA(s)."); *May 2011 Order*, 26 FCC Rcd. at 6844, ¶ 19 ("As noted in our [March] order, the Commission or the Bureau, acting on delegated authority, must review and approve the procurement process, including the procurement documents, and make a final decision about the contract award.").

It is also noteworthy that Neustar appears to have completely changed its view of the Commission's ability to delegate under Section 251(e). In this very proceeding, Neustar has previously advised the Commission that the Commission had properly delegated to NAPM the authority to extend the current LNPA contract without further Commission involvement. *See* Opposition of Neustar, Inc., at 18-22, WCB Docket No. 09-109 (filed Sept. 8, 2009) ("[T]here is simply no basis on which to conclude that Commission approval was required for the NAPM LLC to negotiate [Amendment 70] to reduce the industry's costs. . . . Thus, the decision to adopt Amendment 70 plainly fell within the NAPM LLC's authority as envisioned by the Commission."). This is yet another example of Neustar changing a position midstream once it realized it might not remain the LNPA.

NANC recommendation, "reports from the NANC's LNPA Selection Working Group (SWG) and the North American Portability Management LLC's (NAPM's) Future of Number Portability Administration Center (FoNPAC)."[294] The Public Notice further noted that the record it generated "will be taken into account as the full Commission considers this matter, including resolving the procedural arguments raised in the record to date and ultimately identifying the vendor that will serve as the LNPA in a cost-effective, neutral and secure fashion."[295] And in addition, the Commission noted it would review the bid documents submitted by the vendors and transcripts of meetings between FoNPAC and the vendors.[296]

It is thus clear that the Commission is not looking to apply a "rubber stamp," as Neustar baselessly argues.[297] The Commission did precisely what the law permits—"enlist[ ] a Federal Advisory Committee or other advisory body to assist with evaluation and provide a recommendation,"[298] while reserving the ultimate, considered decision for itself. There is no delegation problem here when the Commission reviews the NANC recommendation as part of its decisionmaking process to select the next LNPA. And given the full record the Commission has already said it would review in conjunction with the NANC recommendation, there is no justification for Neustar's fear of supposed "black box" decisionmaking.[299]

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[294] *June 2014 Public Notice*, at 1.

[295] *Id.* at 2.

[296] *Id.*

[297] Neustar Comments at 64.

[298] *Id.* (conceding that the Commission may authorize the NANC to evaluate the bids and provide a recommendation).

[299] *Id.* at 76-77.

E. The Commission May and Should Give the NANC Recommendation Substantial Weight.

While the Commission has not delegated its final selection authority to the NANC, it can and should give the recommendation substantial weight. As the Commission has previously recognized, "[t]he NANC represents a broad cross section of carriers with interests in numbering and number portability issues and has developed substantial expertise while formulating its recommendations regarding number portability implementation."[300] Similarly, the NAPM—whose work the NANC was asked to review—is "the entity with the greatest expertise regarding the structure and operation of the database for its region."[301] Because the Commission asked these expert groups—representatives of the entities that have the most at stake from the LNPA selection—to undertake the initial extensive review of the bids and because the NANC and the FoNPAC painstakingly performed this duty over the course of several years,[302] it is reasonable for the Commission to afford substantial weight to NANC's and FoNPAC's recommendation, as it has with NANC recommendations for past numbering administrators. Moreover, affording substantial weight to the NANC recommendation does not result in a *de facto* delegation, especially in a situation like this where the Commission has specifically retained final authority

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[300] *Telephone Number Portability*, Second Report and Order, FCC 97-289, 12 FCC Rcd. 12,281, 12,351-52 ¶ 129 (1997).

[301] *Id.*, 12 FCC Rcd. at 12,346 ¶ 117.

[302] *See* USTA/CTIA Comments at 13-15 (enumerating 24 specific "Herculean efforts" done by NANC and NAPM in this proceeding).

over the LNPA decision,[303] and where the Commission has said it will review materials outside the recommendation in making its independent decision.

Tellingly, *Neustar agreed*, at least until it began to suspect it might not be awarded the contract. Indeed, Neustar has informed the Commission several times over the course of this proceeding that, among other things, (1) "NAPM, subject to the supervision of NANC, has exactly the right incentives to design an RFP process and select an LNPA in a manner that will best serve the public interest and consumers"[304]; (2) the LNPA services market is competitive, the NAPM includes the "industry's most sophisticated purchasers," and that "deference to industry judgment makes sense, more so today than ever"[305]; and (3) "[i]n fact, the NPAC contract is between the LNPA and the NAPM LLC, and the database is entirely funded through fees paid by telecommunications and interconnected VoIP service providers. All of these service providers are eligible to become members of the NAPM LLC. Indeed, the entities that pay the vast bulk of the NPAC's costs are represented through NAPM LLC membership, creating a significant incentive for the NAPM LLC to ensure that the NPAC is run as efficiently and pro-competitively as possible."[306] It is thus deeply cynical for Neustar now, after extolling NAPM's virtues for years, to complain that the Commission should not afford great weight to the NANC recommendation that was reached based on NAPM's own recommendation.

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[303] *See, e.g.*, *Nat'l Park & Conservation Ass'n v. Stanton*, 54 F. Supp. 2d 7, 19 (D.D.C. 1999); *see also R. H. Johnson & Co. v. Sec. & Exch. Comm'n*, 198 F.2d 690, 695 (2d Cir. 1952).

[304] Letter from Aaron Panner, Counsel for Neustar, Inc., to Marlene H. Dortch, Secretary, FCC, at 1, CC Docket No. 95-116, WC Docket Nos. 07-149 & 09-109 (Mar. 28, 2012).

[305] Neustar Mar. 9, 2012 Letter, Attachment at 5, 2.

[306] Neustar Mar. 29, 2011 Reply Comments at 3.

Given the makeup of the NANC and the collaborative, participatory process that led its recommendation, Neustar's current concerns are easily brushed aside. Specifically, the NANC and its subgroups are intimately involved in the administration of, and its members have experts of in, number portability. Further, the NANC and NAPM have a significant stake in the reliable operation of the NPAC/SMS, and their industry members compete with one another vigorously and thus have a substantial interest in impartial local number portability administration. And importantly, the NANC and NAPM members will bear the substantial majority of the direct and indirect costs of transitioning to a new LNPA. It is thus clear that, the parties for whom Neustar now claims to speak were involved from the beginning in the NANC recommendation and devoted substantial time and resources to analyzing the bids. It is unreasonable now to argue those parties acted against their own or the industry's interests. Indeed, in considering the NANC's recommendation, the Commission should note that:

- The NANC is its longstanding and balanced industry advisory committee on numbering issues,
- The NANC and its subgroups are intimately involved in the administration of number portability,
- The NANC and its subgroups, with Commission oversight, define the local number portability requirements and processes,
- The NANC and NAPM members have expertise in number portability,
- The NANC and NAPM members have a major stake in the reliable operation of the NPAC/SMS,
- The NANC and NAPM industry members compete with one another vigorously, and thus have a substantial interest in impartial local number portability administration,
- The NANC and NAPM members will bear the substantial majority of the direct and indirect costs of the next LNPA, including the costs of transitioning to a new LNPA, and

- The NANC and NAPM members invested significant time and resources in evaluating the competing bids.

If anything, here industry and affected parties spoke with a clear voice: the recommendation received a true hallmark of industry-wide support—the vote was unanimous with one abstention.[307] When industry and affected parties find a way to speak in a clear, unequivocal way, the Commission ought to listen.

IV. NEUSTAR'S CRIES OF ALARM OVER TELCORDIA'S TRANSITION PLAN ARE, IN REALITY, NOTHING MORE THAN A CONTINUATION OF ITS TIRED FEAR-MONGERING CAMPAIGN.

Neustar argues that Telcordia's transition plan is inadequate and predicts grave consequences for the future of number porting. The Commission need not and should not give that overblown prediction any weight. In the first instance, both the NAPM and the NANC SWG scrutinized Telcordia's transition plan. Neustar attempts to brush this off, but the fact that both of these expert entities—with substantial operational expertise and stake in the effective operation of number portability—concluded that a transition ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** is significant and entitled to substantial weight.[308] The industry has no incentive to have a failed transition. To the contrary, if the transition fails, the industry will have to extend the current contract beyond any extension that might occur in the process of carrying out the transition, at a substantial cost above what it could achieve through a successful transition.[309] Neustar asks the Commission to indulge its tale

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[307] *June 2014 Public Notice* at 1.

[308] FoNPAC Selection Report at 12; SWG Selection Report at 4.

[309] It bears emphasis that there is no reason to believe there would be any consumer impact or disruption of 911 services from the transition. *See* Reply Comments of the Public Utility

that the industry members—who both utilize and pay the costs of local number portability—cavalierly ignored or underestimated transition risks. Nothing supports Neustar's view: to the contrary, the NANC and NAPM concluded that a ****BEGIN CONFIDENTIAL**** [redacted]

****END CONFIDENTIAL****

A. The NANC and NAPM Were Not Ignorant of the Transition Risks that Neustar Presents Again Here.

The NANC and NAPM did not assess transition risks in a vacuum. In fact, Neustar put substantially the same arguments that it now presents to the Commission into its documents supporting its bid. For example:

- Neustar alleged that an industry-wide transition would entail enormous costs of financial risk—claiming, based on the Singer study, that they could reach $719 million in the first year, including from failed calls and texts, delayed or lost subscriber revenue, blocked access to numbering resources, inability to complete mergers and acquisitions, technology migrations and customer launches, stalled innovation, delayed emergency preparedness and loss of consumer confidence in number portability.[310]

- Neustar made claims that the U.S. database is unique, with no comparable system in the world,[311] and administering India's, or any other, LNPA database had no bearing on the ability to administer the US database because the U.S. database is superior to India's.[312]

Division of the Oklahoma Corporation Commission at 2-4, WC Docket No. 09-109 and CC Docket No. 95-116 (filed Aug. 8, 2014).

[310] Neustar Bid, Technical Factors Part 1 § 1.0 at 1.0-9 (Document No. 2 of Neustar production); *id.*, Technical Factors Part 2 § 1.6 at 1.6-1 (Document No. 3 of Neustar production); *id.*, BAFO Question 1 at 1, 7, 11-12 (Document No. 23 of Neustar production).

[311] *Id.*, Management Factors § 2.4 at 2.4-2 (Document No. 4 of Neustar production).

[312] *Id.*, Technical Factors Part 2 § 1.6 at 1.6-3 (Document 3 of Neustar production); Neustar Transcript at 38:17-40:14.

- Neustar claimed that there was insufficient time to implement the transition, arguing that a fifteen month transition period was too short to complete a transition to a new vendor. Neustar estimated the transition would require at least 29 more months.[313] Moreover, Neustar claimed that ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

- Neustar claimed the LNPA is an operation of enormous complexity, with 635 million telephone numbers and all of the associated routing, rating, and billing information, plus 1.4 million updates per day.[315]

- Neustar claimed that it would be impossible for another provider to take over, because operating the NPAC is challenging enough for Neustar's engineers operating in a stable environment. Neustar even argued that it is "nearly impossible for somebody to take . . . over and . . . modify" the NPAC and "absolutely impossible for somebody to build software themselves to run this very complex system."[316]

- Neustar claimed that many large enterprises are Neustar customers because of Neustar's security processes and procedures, arguing that other bidders "don't really have this kind of experience with security," whereas Neustar's security practices must constantly evolve to anticipate constantly evolving threats from attackers.[317] Neustar questioned whether FoNPAC "want[s] to let the NPAC be a training ground for some company to learn about how to do security?"[318]

- Neustar explained that the NPAC is constantly evolving and improving in the services that it provides and warned against allowing new providers to use the

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[313] Neustar Bid, BAFO Question 1 at 7-11 (Document No. 23 of Neustar production); Neustar Transcript at 54:5-54:7.

[314] Neustar Bid, BAFO Question 1 at 7 (Document No. 23 of Neustar production).

[315] Neustar Transcript at 13:11.

[316] *Id.* at 26:7-27:9

[317] *Id.* at 28:13-28:15.

[318] *Id*. at 28:11-28:12.

NPAC as a training ground to learn about the unique services that Neustar provides.[319]

- Neustar contended that, as the only company in the country that has built, deployed, and operated an LNPA, ever, it had a unique perspective, which allowed it to give FoNPAC useful information to help make a decision, including its view that converting from one database to another would be incredibly difficult.[320]

- Neustar raised the specter of botched transitions in the airline industry, specifically discussing in detail significant issues with United Airlines reservation system conversion.[321]

- Neustar guaranteed that if it was retained, there would be "zero financial, operational, and strategic risk" to the industry and consumers, and it would deliver guaranteed technical and operational reliability.[322]

The NANC thus had all of Neustar's current arguments before it during its evaluation of the bids and made its selection fully cognizant of Neustar's Chicken Little claims.

B. The Procurement Documents Substantially Reduced the Scope of Any Transition by Not Making Any Changes in System Specifications or Data Fields, and by Requiring that the Next LNPA Use Existing Interface Specifications.

As discussed in Section III.C.2 above, the RFP required respondents to meet and maintain the existing interfaces and business rules. Thus, even after a vendor change, the interfaces between the NPAC and the gateway products on the carrier end will not change and the NPAC must support those interfaces.[323] This means that carriers and service bureaus should

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[319] *Id.*; *id.* at 30:7-30:8.

[320] *Id.* at 51:13-52:7.

[321] *Id.* at 57:2-57:15.

[322] Neustar Bid, BAFO Question 1 § 2.1 at 1, 4 (Document No. 23 of Neustar production).

[323] *See* Telcordia Bid, RFP, Attachment to Question § 12.3; *see also* VQS § 3.3.

not have to change their systems, other than to point to the new LNPA. Moreover, the business rules for porting have to comply with the RFP requirements and these must be met by the LNPA, including the FCC mandated porting times. Unlike the implementation of one-day porting, the transition of the LNPA from Neustar to Telcordia does not require any changes to the database fields or the industry business processes around porting. The scope and requirements of the NPAC are well documented and understood.[324]

These facts minimize the transition's risk and belie the suggestion that the LNPA transition is a task of unprecedented, highly risky complexity. That conclusion is confirmed by Deloitte,[325] and a study of Professor Eric Burger. As Professor Burger points out, the NPAC Change Management Agent (which is Neustar) has "fully specified the features, functionality, external interfaces[,] business rules, database schema, and data dictionary of the NPAC."[326] The NPAC system, and the specifications have not materially changed and have been "running by industry for over five years."[327] There is no new added functionality as part of the database

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[324] Eric Burger, *Issues and Analysis of a Provider Transition for the NPAC*, S^{2}ERC TECHNICAL REPORT, at 3, 10 (July 22, 2014) ("Burger Report") (attached as Exhibit B; Report of Deloitte Consulting, LLP (Aug. 8. 2014) ("Deloitte Report") (attached as Exhibit C) (finding that "the scope and requirements are well defined and documented.").

[325] Deloitte Report at 2 ("our experience suggests that the NPAC migration, if properly handled, is achievable without undue risk"); *id.* at 3 ("[G]iven our experience in large-scale IT projects, Deloitte Consulting believes that implementation and transition risk can be significantly mitigated through proper planning, executive sponsorship, quality assurance testing and project management. . . . Deloitte does not believe that the risk of transition failure for the NPAC is more significant than the risk of other comparable and notably successful system migrations.").

[326] Burger Report at 8.

[327] *Id.* at 9.

transition.[328] The NPAC is also not in the real-time call routing path, but instead pushes data to carriers' real-time databases.[329] This leads Professor Burger to conclude, "[T]his is a straightforward, low risk technology migration."[330] Similarly, Deloitte observes, "Based on our understanding of the requirements of the RFP as well as our experience with IT implementations, we believe that the scope and requirements are well defined and documented. There appears to be adequate documentation available to more easily replicate the database integration points, as opposed to a 'greenfield' deployment. Further, the business rules appear to be well-defined."[331]

This requirement's stability and lack of changes in business rules substantially distinguishes the NPAC from airline reservations systems or healthcare.gov. When United and Continental merged and attempted to merge their disparate airline reservation systems, they were also changing their business rules.[332] Healthcare.gov was a completely greenfields implementation of a new system in which the business rules and practices were just being developed. As Deloitte and Burger point out, these types of IT transitions are not comparable to the LNPA transition.[333] Deloitte concludes that it "does not believe that the proposed project has

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[328] *Id*. at 9.

[329] *Id.* at 5, 10.

[330] *Id.* at 8.

[331] Deloitte Report at 3.

[332] Burger Report at 15.

[333] *Id.* at 8, 14-15; Deloitte Report at 3 ("Deloitte Consulting does not believe that the proposed project has the same risk profile as a 'greenfield' implementation or an integration of multiple different platforms into a single IT platform.").

the same risk profile as a 'greenfield' implementation or an integration of multiple different platforms into a single IT platform."[334]

The Standish Group comments and blog do not lead to a different conclusion. The Standish Group based its cataclysmic predictions on generic concerns, tied to unspecific data, and does not appear to have reviewed the actual terms of the RFP and the detailed specifications Neustar produced as NPAC Change Management Agent. The Standish Group openly admits that it "[had] not been privy to evaluate [sic] [Telcordia's] project plans and operating environment."[335] Among other things, Standish predicts high likelihood of failure in a "flash-cut switch,"[336] but Telcordia has never proposed such an abrupt change at the national level.

The Singer paper, similarly, is not applicable to the transition to Telcordia because it does not account for a fully specified system like the LNPA database. The commissioned paper published by Singer developed a risk model using various metrics to discuss the potential costs of an LNPA transition, but instead of modeling a fully specified and operational system, Singer models the costs in the airline industry of taking two systems with *almost* the same data model, but with different business rules and customer applications, and attempting to merge all at once. But as Dr. Burger's report illustrates of the airline transition, changing requirements on the fly that would negatively affect the most vocal customers, implementing a new system that more than half the agents had never used before, and migrating to a new data paradigm—all on the

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[334] Deloitte Report at 3.

[335] Letter from James H. Johnson, Chairman of the Standish Group, to Thomas Wheeler, Chairman, FCC, CC Docket No. 95-116, WC Docket Nos. 07-149 & 09-109, at 3 (July 25, 2014).

[336] Neustar Comments at 92 n.280.

same day—was a recipe for disaster.[337] Quite unlike the airline examples given in Neustar's papers, the LNPA transition is a well-documented, straightforward, relatively low-risk technology migration. While the Singer results may be useful for analyzing a very different type of migration, it is not at all useful for analyzing the costs of the NPAC transition to Telcordia.

Accordingly, the RFP and TRD by design limited the scope of the transition necessary to change LNPAs, thus reducing substantially the risks that the NAPM and NANC had to evaluate when considering transition risks as part of their recommendation. As Deloitte concluded, based on its experience with IT implementations, system migrations, and system enhancements across multiple industries, "the NPAC migration, if properly handled, is achievable without undue risk."[338]

C. The July 2015 Deadline Is a Red Herring Because the Transition Period Is a Management Issue that Will Be Addressed by the Industry and the Prevailing Bidder Post-Selection.

Neustar argues that the current schedule for the transition is too short—that it cannot be accomplished by July 2015.

That argument is a red herring with respect to selection. In the first instance, as Telcordia explained in its Transition and Implementation Plan, planning for a transition begins before the contract is awarded and continues afterward.[339] Thus, there are many steps toward a transition that are already underway. Moreover, as Deloitte explains, there are opportunities to compress

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[337] Burger Report at 8.

[338] Deloitte Report at 2.

[339] Telcordia Bid, RFP, Attachment to Question 12.3 at 6 (Telcordia00141); *see also* Deloitte Report at 2 ("Deloitte Consulting views the iconectiv transition planning description to be of sufficient breadth and depth as a response to a Request for Proposal, with further detail to come in subsequent discussions as is common practice.").

the transition schedule, but the suitability of such options will depend on joint discussions between industry and the prevailing bidder, taking into account certain risk profiles and trade-offs.[340]

Of course, it is possible that more time may be needed beyond July 1, 2015, in order to effect an orderly transition. As Deloitte states, these options should be left to "joint discussions between iconectiv and carriers, focused specifically on risk profiles and trade-offs amongst each."[341] The existing contract provides a vehicle for these joint discussions to occur. The existing NAPM contract with Neustar gives NAPM the right to elect to extend the current contract at the current rates.[342] Thus, if the industry and Telcordia determine that a reasonable implementation period will extend beyond July 1, 2015, there is a vehicle to accommodate that. This is a post-selection transition management issue, not—as Neustar would suggest—a selection concern.

Notably, such an extension would not substantially alter the rationale for NAPM's and NANC's selection recommendations. ****BEGIN HIGHLY CONFIDENTIAL****

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[340] Deloitte Report at 2.

[341] *Id.* at 3.

[342] Indeed, the NAPM's Master Agreement with Neustar allows it to extend the agreement period for up to an additional 18 months. Agreement for Number Portability Adminsitration Center / Service Mgmt. System between Lockheed Martin IMS and Mid-Atlantic Carrier Acquisition Company, LLC, Arts. 24.2, 24.3 ("Master Agreement"). Accordingly, the timing can be extended rather than jeopardizing the success of the transition. And, as in any procurement project, the effective date can also always be equitably adjusted should such an extraordinary remedy truly become necessary.

[redacted] ****END HIGHLY CONFIDENTIAL**** This incremental cost of an extension of the current agreement remains far outweighed by the savings that would be achieved by ultimately transitioning to Telcordia.

D. Telcordia's Transition Plan Is Appropriate for the Selection-Process Stage.

Finally, the level of detail contained in Telcordia's transition plan was reasonable for the selection process stage and consistent with the RFP requirements.[343] Notably, Deloitte concluded that "the RFP provides sufficient information for respondents to provide information"[344] and that "iconectiv's response addresses the core elements of transition planning, beginning with the initial scoping and requirements gathering, and ending with a complete cutover and post go-live model."[345] Further, Deloitte concluded, "It appears that each subordinate phase addresses the major features of a large scale migration, and takes into account the particular nature of this migration."[346]

Transition and risk management planning cannot be entirely known in advance. To mitigate risks, it is necessary to approach transition planning as an organic process that continues to be refined during the implementation stage.[347] Adoption of such an approach helps ensure continuity of services, reduces risk, and minimizes cost. As Deloitte stated, "the iconectiv transition planning description [is] of sufficient breadth and depth as a response to a Request for

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[343] Deloitte Report at 2.

[344] *Id.* at 1.

[345] *Id.*

[346] *Id.*

[347] Telcordia Bid, RFP, Attachment to Question 12.3 at 11-25 (Telcordia00146-Telcordia00160).

Proposal, with further detail to come in subsequent discussions as is common practice."[348] Telcordia will continue to work with industry to refine transition planning throughout implementation.

1. Neustar's Argument That Telcordia Has Not Addressed Industry Coordination Ignores Its Own Obligations to Cooperate With the Transition.

Neustar argues that Telcordia has failed to account for industry coordination in its transition planning. But this ignores Neustar's own obligation to assist in coordinating the transition.[349] Moreover, the industry does not need Neustar to speak for it. As CTIA makes clear in its comments,[350] the NANC—which is composed of a broad cross-section of affected industry segments including carriers—*unanimously* approved of Telcordia. The parties with the most at stake therefore have already demonstrated their confidence in Telcordia's abilities. Indeed, the fact that the CTIA and USTA endorsed Telcordia in their comments puts the lie to any suggestion that the industry is not prepared for Telcordia to become the next LNPA.

Moreover, Neustar's concern about resolving issues between the two LNPAs during testing, cutover, and regional handoff is misplaced.[351] Article 26.1 of the Master Agreement provides an internal dispute resolution process to handle disputes arising from the transition.[352]

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[348] Deloitte Report at 2.

[349] NAPM Agreement § 24.1.

[350] USTA/CTIA Comments at 11.

[351] Neustar Comments at 99.

[352] Master Agreement, Art. 26.1.

2. Telcordia's Turnup Will Not Be Haphazard.

Telcordia's plan to turn up ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] **** END HIGHLY CONFIDENTIAL**** does not pose the risk Neustar claims it does. As already noted, the transition is a straightforward process[353] that has been years in the planning. Telcordia's turn-up will not be haphazard. Neustar enumerates many factors that are involved in this transition—pointing providers' systems away from Neustar's database; readying initial system configurations; converting data from one database schema to another—but it fails to identify with *specificity* how a single factor will be jeopardized by Telcordia's turn-up plan. Since Telcordia's transition plan proposed to turn up ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** the plan included appropriate staffing and resources to conduct the necessary operations, *e.g.*, migrating all the databases, during the window.

3. Neustar's Warning About a Potential Rollback Crisis Is a Continuation of its Fear-Mongering Campaign.

Neustar's Chicken Little warning about a potential rollback crisis is nothing more than the continuation of its fear-mongering campaign. Telcordia's substantial experience implementing and delivering on NPAC business processes reduces any risk to a low level.[354] Further, assuming that Neustar has appropriately done its job as the NPAC's Change

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[353] Burger Report at 8.

[354] Burger Report at 10-13.

Management Administrator of providing and publishing system documentation, the risk is even further reduced.

Nevertheless, Telcordia will have a contingency plan in place when it transitions to LNPA. This is a critical risk-mitigation step that addresses the possible occurrence of any problems that could affect porting after the go-live event.[355]

* * *

In sum, none of Neustar's contemplated transition concerns has any substance. Telcordia has provided a detailed, comprehensive transition plan that appropriately accounts for risk. Neustar's cooked-up criticism do not change the fact that Telcordia is ready to become the next LNPA.

V. TELCORDIA HAS A ROBUST SECURITY PLAN THAT CAN BE FURTHER REFINED THROUGH THE POST-AWARD IMPLEMENTATION PROCESS.

Contrary to Neustar's assertions, security was not an afterthought in the LNPA selection process. The RFP contained multiple sections related to security,[356] and both potential vendors' bid documents contained lengthy discussions of security. Indeed, Telcordia's bid contained multiple sections devoted to security.[357] The SWG correctly determined that Telcordia's bid ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL** **BEGIN HIGHLY**

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[355] Telcordia Bid, RFP, Attachment to Question 12.3 at 25-26 (Telcordia00160-Telcordia00161).

[356] TRD §§ 7, 6.7, 9.20.

[357] *E.g.* Telcordia Bid, TRD, Attachment to Question 12.1 § 8 (Telcordia08115-Telcordia08121); *id.*, RFP, Attachment to Question 15.1 § 2.4 (Telcordia00287-Telcordia00293).

CONFIDENTIAL** [redacted] ****END HIGHLY CONFIDENTIAL****

****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL****

In a last-ditch effort to retain its contract, Neustar nonetheless asks the Commission to discard the results of the current bidding and allow it to submit a new bid under the theory that "[t]he selection of an LNPA implicates serious national-security issues that were not addressed in the RFP process" and that the Commission should allow "candidates to compete on the relative security of their proposed systems."[359] There is no reason for the Commission to take such an extraordinary step at this time. Telcordia presented a proposal with robust security provisions. Telcordia is not an unknown entity: in fact, it is a highly experienced provider that has provided secure and reliable databases that lie at the core of telecommunications routing since the days when it was part of the integrated Bell System. Moreover, ****BEGIN CRITICAL INFRASTRUCTURE**** ****BEING HIGHLY CONFIDENTIAL**** [redacted] **END HIGHLY CONFIDENTIAL**** ****END CRITICAL INFRASTRUCTURE**** Any remaining security concerns, to the extent that they are shared by Executive Branch agencies, can and should be addressed through post-selection mitigation discussions with those agencies, with selection conditioned upon providing adequate assurances. Proceeding in this manner would allow the Commission to ensure that national

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[358] SWG Selection Report at 4.

[359] Neustar Comments at 12.

security concerns are fully safeguarded, while allowing the construction and testing of the new NPAC/SMS to proceed. The LNPA selection process contemplated a post-award LNPA contract negotiation with the NAPM, during which any additional security implementations could be further developed and refined.

Neustar's claim to be entitled to bid in response to enhanced security specifications is wildly disingenuous. As discussed in Section III.A, above, Neustar long ago waived any right to object to the content of the RFP when it endorsed the RFP as drafted and failed to raise these substantive concerns. Moreover, although this is not a federal procurement, by analogy federal procurement law would not compel recompetition here, but would permit future revisions to address security needs as a routine matter of contract administration.

Telcordia takes the responsibility for the security, reliability, and usability of the NPAC/SMS and the Enhanced Law Enforcement Platform[360] extremely seriously. As with its tactics with respect to transition costs, Neustar's security arguments are boogeyman tactics, largely based on setting up and demolishing hypothesized strawmen. The reality of Telcordia's proposal and implementation are far different—and far more secure.

A. Neustar Has No Right to Recompete Over Security.

1. Neustar Waived Its Challenges to the RFP's Security Provisions.

As with the other aspects of the RFP that Neustar now finds deficient, for all the reasons addressed at length in Part II.A.2 of these comments, Neustar has waived any ability to object to the security terms of the solicitation or to use those terms to obtain yet another opportunity to

[360] Some of the comments refer to the Enhanced Platform for Law Enforcement Agencies and Public Safety Answering Point Providers as "LEAP," which has been Neustar's name for the Enhanced Law Enforcement Platform.

submit a "Best and Final Offer." Similarly, the RFP expressly provided for post selection negotiations, and Neustar has waived any ability to object to negotiations conducted under that provision. Neusutar "ha[d] an opportunity to object to the terms of a solicitation containing a patent error", i.e., the allegedly deficient security requirements, and "fail[ed] to do so prior to the close of the bidding process;" accordingly, Neustar "waive[d] its ability to raise the same objection afterwards."[361] In asserting that it would be "unfair" to Neustar not to permit it to re-bid on a revised solicitation incorporating additional security terms, Neustar nowhere addresses its failure to address these issues in a timely manner. What would be unfair—to Telcordia and to telecommunications providers and consumers—would be to amend the RFP and to hold a new round of bids, particularly when Telcordia presents a robust security solution.

2. Post-Award, NAPM May Modify the Contract to Address Evolving Security Needs Without Reopening the Competition.

If NAPM, in consultation with or at the direction of the Commission, wishes to apply additional security requirements to the LNPA contract, NAPM may do so as a routine matter of contract administration, without any need to revise the RFP and prolong the LNPA selection process. As a result, there is no need whatsoever to reopen the competition to address security issues.

To begin with, this is not a federal procurement, so Neustar's reliance on the FAR rules governing solicitation amendments is misplaced. Those rules do not apply here. And even if they did, they would not require an RFP amendment or a re-opening of the LNPA competition, for they govern only the proposal evaluation process, and do not constrain an agency's ability to

[361] *Blue and Gold Fleet, L.P.*, 492 F.3d at 1315.

modify a contract after award is made.[362] In fact, the FAR gives contracting officers broad discretion to modify contracts post-award, including the authority "to make unilateral changes, within designated areas, within the general scope of the contract."[363] One of the designated areas where a contracting officer may modify the contract is the contract "specification," which here would include the specification for security requirements.[364]

Here, the FoNPAC and NAPM properly evaluated proposals in accordance with the terms of the RFP, and recommended award to Telcordia. It is entirely proper, and consistent with federal procurement principles, to proceed with award on that basis. Should NAPM, in consultation with the Commission, later decide that it is appropriate to modify its security specification post-award, it may negotiate such a modification with Telcordia, without revising the RFP or re-opening the competition.[365] That is because such issues have nothing to do with the propriety of the agency's evaluation and award decision under the terms of the solicitation.

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[362] FAR 15.206.

[363] FAR 43.201(a).

[364] FAR 52.243-2(a)(1) (clause establishing the contracting officer's authority to modify fixed-price contracts); FAR 52.243-3(a)(1) (clause establishing the contracting officer's authority to modify cost reimbursement contracts).

[365] And to the extent that Neustar is questioning whether Telcordia will comply with the RFP's existing security requirements, that question also is a matter of contract administration, not subject to challenge under federal procurement rules. *Chapman Law Firm v. United States*, 63 Fed. Cl. 519, 529-30 (2005), *aff'd* 163 Fed. Appx. 889 (Fed. Cir. 2006); *see also Aegis Assoc., Inc.*, B-238712 et al., May 31, 1990, 1990 WL 278045, at *1. *Northern Telecom Inc. v. United States*, 8 Cl. Ct. 376, 381 (1985) ("[p]rotests. . . alleging that the awardee will not deliver equipment in conformance with the contract requirements concern matters of contract administration, which are the responsibility of the contracting agency and which are not considered under our bid protest function.").

Rather, they are post-award contract administration issues, the authority for which rests solely with NAPM.[366]

In fact, here the RFP itself expressly contemplated that additional security measures would be developed and implemented post-award. ELEP is a prime example, because it will involve separate agreements with law enforcement to be negotiated and executed post-award.[367] And those agreements will necessarily alter the security requirements of the NAPM contract. As this example shows, NAPM has the authority to modify the awarded contract to incorporate any additional security requirements that may emerge without needing to re-compete the requirement.[368] Because these issues are best addressed as post-award contract administration issues, the federal procurement principles upon which Neustar relies to assert a need to reopen the competition are wholly inapplicable.

B. Telcordia's Bid and Plans, Its Experience With U.S. National Security Protections, and Its International Experience All Demonstrate Its Ability to Develop and Implement a Highly Secure NPAC.

Nor do the security concerns now raised by Neustar's bid warrant any further delay in the process. As explained below, Telcordia's extensive experience shows that it is ready, willing, and able to operate a fully secure NPAC system and all related services. Telcordia has proposed, and plans, a robust set of security protections, and many of the specific issues raised by Neustar are predicated on factual inaccuracies. And to the extent that the relevant Executive Branch agencies determine that additional assurances are appropriate, these can and should be addressed

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[366] *Chapman Law Firm*, 63 Fed. Cl. at 529-30.

[367] RFP § 11.2.

[368] Neustar comments at 116 n.314.

through post-selection mitigation with the relevant agencies. Telcordia is willing to make any reasonable assurances with appropriate Executive Branch agencies a condition of it's LNPA selection—which would put it on a par with maintaining neutrality, which is an ongoing requirement.

1. Telcordia Has Substantial Experience in Operating Reliable and Secure Databases

a. Telcordia Has Experience in U.S. National-Security Protections.

Like Neustar, Telcordia is an American company, with deep roots that go back to the fabled Bell Labs. ****BEGIN CRITICAL INFRASTRUCTURE** **BEGIN HIGHLY CONFIDENTIAL **** [redacted] ****END HIGHLY CONFIDENTIAL** **END CRITICAL INFRASTRUCTURE****

As the FCC is aware, not the least from its own authorization and licensing process, companies that provide highly complex systems and technologies of great criticality to U.S. national security, national defense, and homeland security routinely adopt U.S.-defined protections. The United States has a system with strong protections, and ****BEGIN CRITICAL**

INFRASTRUCTURE **BEGIN HIGHLY CONFIDENTIAL **** [redacted] ****END HIGHLY CONFIDENTIAL** **END CRITICAL INFRASTRUCTURE**** Moreover, Telcordia already provides products and services critical to telephone routing, including Telcordia Routing Administration (i.e. LERG) and Common Language services.

b. Telcordia's International Experience Is a Strength.

Telcordia's home base is the United States, ****BEGIN CRITICAL INFRASTRUCTURE**** [redacted] ****END CRITICAL INFRASTRUCTURE**** Those 20 countries include five NATO countries, Canada, and Mexico, and all of the countries where Telcordia provides these services are members of the World Trade Organization.

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369 The acronym LERG originally stood for "Local Exchange Routing Guide."

370 Since Neustar enjoys substituting the name "Ericsson" each time it refers to Telcordia, we note that in each of these 20 countries, the contract is with Telcordia, not Ericsson.

Telcordia LNPA systems in other countries have security procedures. ****BEGIN CRITICAL INFRASTRUCTURE** **BEGIN HIGHLY CONFIDENTIAL **** [redacted] ****END HIGHLY CONFIDENTIAL** **END CRITICAL INFRASTRUCTURE****

2. Telcordia Is Ready, Willing, and Able to Meet All Security Needs.

Telcordia and its data center partner, Sungard AS, are completely capable of and committed to meeting all of the security requirements envisioned by the RFP for both the NPAC/SMS system and the ELEP. Telcordia, and Sungard AS, will steadfastly remain compliant with the security requirements outlined in the RFP, as well as any security requirements agreed to in post-selection mitigation, recognizing that these are flexible enough to account for changes in the threat environment. ****BEGIN CRITICAL INFRASTRUCTURE** **BEGIN HIGHLY CONFIDENTIAL **** [redacted]

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Moreover, as explained in Part I.B.2.c, *supra*, in its bid, Telcordia has also agreed to implement numerous safeguards to ensure its independence of Ericsson, and these safeguards

further mitigate any national-security issues posed by Ericsson's acquisition of Telcordia. For example, as explained earlier, Telcordia will have its own board of directors, a majority of whom will be outside independent directors. Indeed, Telcordia's five-member board will have only *one* Ericsson representative; the remaining four members are U.S. citizens.

Furthermore, Telcordia is aware of and experienced in a dynamic threat environment, especially in view of the prevalence of Chinese and other national, sub-national, and criminal intrusions and attacks over the last few years and the post-Snowden revelations. Telcordia is willing to be required, as a condition of its selection as LNPA, to provide reasonable assurances to the appropriate U.S. Executive Branch agencies. Based on its deep experience with mission critical telecommunications infrastructure and systems, Telcordia is confident that it will meet all the requirements and standards to be a fully secure LNPA provider, perhaps adding more security features and experience than has been afforded to the Nation in the past.

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[371] SWG Report at 4.

[redacted]

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[redacted] ****END HIGHLY CONFIDENTIAL** **END CRITICAL INFRASTRUCTURE****

3. Many of the Security "Issues" Raised by Neustar Are Simply Wrong on the Facts.

Despite the strength of Telcordia's bid and its extensive experience, Neustar has, in the press[372] and in its reply comments, dreamed up a number of supposed security issues. The majority of these issues are simply wrong on the facts. First, contrary to Neustar's assertions, Telcordia is not re-using code from foreign implementations. The code for the NPAC is being developed from scratch in America. Similarly, contrary to reports in the press, there is no danger that hackers could "hack into the database to see what numbers the FBI or another security

[372] At the same time that Neustar was redacting pages of security hysteria in its Comments for the FCC, its officers and agents were discussing many of those concerns in the press. Indisputably, this Janus-like approach to security is a clear indicator that Neustar merely and mercenarily desires to exploit the U.S. Government's legitimate concern about the security as a foil and an artifice to achieve what it could not in the selection process.

agency has wiretaps on."[373] The NPAC does not keep records of which numbers are the subject of law-enforcement inquiries via ELEP, so there are simply no records for a hacker to steal. The other ELEP concerns raised by Neustar are similarly meritless. Finally, Ericsson's BSS/OSS products cannot, under the RFP, and will not be integrated into the NPAC.

a. Telcordia Is Not Reusing Code from Foreign Implementations, and the NPAC's Operations Will Be In, by, and For America.

In the press, Neustar has suggested that Telcordia is reusing code from number-portability systems in foreign countries. This is entirely false. Telcordia is creating entirely new code for the U.S. NPAC, developed in America. Telcordia is not re-using code from foreign implementations, nor is it contracting its code development from non-U.S. sources. All NPAC user data will be stored in the continental United States in dedicated servers and equipment with physical and logical access control. ****BEGIN CRITICAL INFRASTRUCTURE****

****BEGIN HIGHLY CONFIDENTIAL **** [redacted] ****END HIGHLY CONFIDENTIAL****

[373] Ellen Nakashima, *Neustar, Telcordia Battle Over FCC Contract to Play Traffic Cop for Phone Calls, Texts*, Wash. Post (August 9, 2014), http://www.washingtonpost.com/world/national-security/neustar-telcordia-battle-over-fcc-contract-to-play-traffic-cop-for-phone-calls-texts/2014/08/09/778edeaa-1e7b-11e4-ae54-0cfe1f974f8a_story.html.

****END CRITICAL INFRASTRUCTURE** Neustar's** comments to the contrary are speculative nonsense.

Telcordia's LNPA service does not and will not reuse any code from existing Telcordia LNP applications. ****BEGIN CRITICAL INFRASTRUCTURE** **BEGIN HIGHLY CONFIDENTIAL **** [redacted] ****END HIGHLY CONFIDENTIAL** **END CRITICAL INFRASTRUCTURE**** The application is being developed new *from scratch* using the existing industry requirements (*e.g.* FRS, IIS, and XIS).

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b. Telcordia Can and Will Meet All Enhanced Law Enforcement Platform Requirements.

In addition to the fact that Neustar's complaints about the RFP's handling of the Enhanced Law Enforcement Platform and its security are an untimely attempt to re-hash the selection process, Neustar is factually incorrect. The RFP does not ignore ELEP. Rather, the RFP covers it significantly, and, in fact, includes security-related requirements for ELEP.[374] Telcordia has responded substantively and demonstrated that it has the experience and capability to ensure a smooth transition, assuming Neustar's cooperation, and to provide continuous, stable ELEP services.

****BEGIN CRITICAL INFRASTRUCTURE** **BEGIN HIGHLY CONFIDENTIAL**** [redacted]

****END CONFIDENTIAL** **END CRITICAL INFRASTRUCTURE****

[374] *See generally* 2015 LNPA RFP § 11.2 (RFP); *id.* § 11.2, REQ 8 ("Access to Enhanced Law Enforcement Platform shall be accomplished by authenticated, secure and encrypted means.").

In any case, Neustar's Chicken Little claims regarding ELEP[375] are wrong on the merits. Telcordia's process would not retain queries made by law enforcement agencies using ELEP. Telecommunications providers are required to maintain records of requests for law enforcement access, but those requirements do not apply to Telcordia in its administration of the NPAC. Further, Telcordia's ELEP administrator and other personnel would not be allowed to monitor law enforcement queries. Additionally, the RFP adequately requires[376] a separate agreement between the NPAC/SMS operator and law enforcement.

****BEGIN CRITICAL INFRASTRUCTURE** **BEGIN HIGHLY CONFIDENTIAL**** [redacted]

[375] Ellen Nakashima, *Neustar, Telcordia Battle Over FCC Contract to Play Traffic Cop for Phone Calls, Texts*, Wash. Post (August 9, 2014), http://www.washingtonpost.com/world/national-security/neustar-telcordia-battle-over-fcc-contract-to-play-traffic-cop-for-phone-calls-texts/2014/08/09/778edeaa-1e7b-11e4-ae54-0cfe1f974f8a_story.html.

[376] RFP § 11.2, REQ 5, REQ 16.

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c. The NPAC Will Not Be Integrated With BSS/OSS Products.

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****END CRITICAL INFRASTRUCTURE****

The NPAC cannot technically treat any one carrier's OSS/BSS systems differently than the others. The carrier OSS/BSS systems are not co-resident with or connected to the NPAC. The OSS/BSS systems interface to the NPAC through gateway products (SOA, LSMS) that have to comply with industry-defined standard protocols that designate the specific messages associated with the features that are supported by the NPAC. All features supported by the NPAC are standard for all carriers and managed through an industry change management process supervised by the LNPA WG, which is a working group reporting into the NANC. The LNPA can only implement technical changes after they are accepted by the LNPA WG and approved by the NAPM LLC, as contract administrator. Both groups report into NANC, which oversees the NPAC system.

The Telcordia NPAC will only perform the agreed-upon NPAC features and functions that are defined by the industry specifications managed through the industry working groups and the designated FCC contract manager, NAPM LLC. No other functionality will be included in the NPAC. If Ericsson ever desires to become a user of the NPAC, it would have to apply and go through the same approval process as any other user, a process that would be completely transparent and open to the U.S. Government. There would be no possibility of integration, no back door, and no partiality.

d. The Emergency Communications Concerns Raised by Neustar Would Require a Series of Complex Intrusions, Which Telcordia Has Safeguards to Prevent.

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****END HIGHLY CONFIDENTIAL** **END CRITICAL INFRASTRUCTURE****

C. Telcordia Is Already Consulting With National Security and Law-Enforcement Agencies to Address Post-Selection Implementation Issues.

Finally, to the extent that any security issues remain, these are appropriately handled through post-selection mitigation with the appropriate agencies. As explained above, Telcordia has already proposed and further plans a robust set of security protections and has extensive experience addressing national-security concerns of relevant government agencies. To the extent that the relevant agencies determine that additional protections are necessary, Telcordia is ready, willing, and able to address these through post-selection discussions with the relevant agencies. Indeed, Telcordia is already consulting with the relevant agencies to address post-selection implementation issues.

The Commission should not delay selection while those discussions occur. As explained already, Telcordia is willing to make any reasonable assurances with appropriate Executive Branch agencies as a condition of LNPA selection—which would put it on a par with maintaining neutrality, which is an ongoing requirement. Given Telcordia's extensive experience, there should be no doubt that Telcordia will be able to secure and protect the NPAC and to give any reasonable assurances to the relevant agencies. The Commission should not

allow that process to hold up a selection decision, which can be reached expeditiously on the current record.

* * *

The FCC in its RFP recognized the grave importance of security to the NPAC and its ELEP function, requiring details and yet the flexibility to assure the agility of the LNPA to meet existing and future security needs and concerns. Telcordia substantively responded in detail, incorporating its experiences worldwide while making the NPAC an American creation on American soil. ****BEGIN CONFIDENTIAL**** [redacted] ****END CONFIDENTIAL**** Neustar has thrown out so many red herrings to distract logical decision making and straw men against which to tilt that they may have obscured one other fact: Neustar has not provided any substantive basis for overturning the recommendation based on security. Indeed, Telcordia not only can do as well as Neustar at protecting the security of the NPAC, but with its new build it may do much better.

CONCLUSION

The Commission should approve the NANC's recommendation of Telcordia as the next LNPA and should direct NAPM to expeditiously enter a contract with Telcordia.

Respectfully submitted,

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August 22, 2014

Exhibit A

Declaration of Travis Baker

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of:	
Petition of Telcordia Technologies, Inc. To Reform or Strike Amendment 70, To Institute a Competitive Bidding for Number Portability Administration, and To End the LLC's Interim Role in Number Portability Administration Contract Management	WC Docket No. 09-109
Telephone Number Portability	CC Docket No. 95-116

DECLARATION OF TRAVIS BAKER

My name is Travis Baker. I am Director, Deployment & Integration, at Ericsson Inc. I have personal knowledge of the information in this declaration.

1) Ericsson Inc. provides managed services to a range of telecommunications customers in the United States.

2) These MSAs are not joint ventures and do not include revenue-sharing agreements. Rather, they are arms-length contractual relationships.

3) Ericsson Inc. has MSAs with ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** telecommunications services providers.

4) The Managed Services Agreement by and Between Sprint/United Management Company And Ericsson Inc. formerly known as Ericsson Services Inc. ("2009 Sprint MSA") is no longer in effect. It has been superseded by an Amended and Restated Managed Services Agreement by and Between Sprint/United Management Company and Ericsson Inc., ("Current Sprint MSA") effective July 2013.

5) At the time it was in effect, the 2009 Sprint MSA stated that Ericsson and Sprint remained completely independent entities and were not **BEGIN HIGHLY CONFIDENTIAL** [redacted] **END HIGHLY CONFIDENTIAL** Ericsson Services Inc., as supplier, was responsible for **BEGIN HIGHLY CONFIDENTIAL** [redacted] **END HIGHLY CONFIDENTIAL** It also had **BEGIN HIGHLY CONFIDENTIAL** [redacted] **END HIGHLY CONFIDENTIAL**

6) The Current Sprint MSA contains the same provisions.[4]

7) The Current Sprint MSA requires Ericsson Inc. to abide by certain **BEGIN HIGHLY CONFIDENTIAL** [redacted] **END HIGHLY CONFIDENTIAL** But again, the contract makes clear that these policies all involve Ericsson Inc.'s *performance of services for Sprint* or conduct *while on Sprint property*—for example, **BEGIN HIGHLY CONFIDENTIAL** [redacted]

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1 Managed Services Agreement by and Between Sprint/United Management Company And Ericsson Services Inc.§ 19.12 (July 7, 2009) ("2009 Sprint MSA").

2 *Id.*

3 *Id.*

4 Amended and Restated Managed Services Agreement by and Between Sprint/United Management Company and Ericsson Inc. § 19.12 (July 2013) ("2013 Sprint MSA").

5 2009 Sprint MSA § 17.1 (emphasis added).

[redacted]

[redacted] ****END HIGHLY CONFIDENTIAL****

8) The 2009 Sprint MSA and the Current Sprint MSA provide:

****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

9) Ericsson Inc. previously had an MSA with Clear Wireless LLC, but that agreement is no longer in effect.

10) After Sprint acquired Clear Wireless, the MSA between Clearwire and Ericsson Inc. was terminated and merged with the Current Sprint MSA.

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[6] *Id.*

[7] *Id.* § 19.12 (emphasis added).

11) The Current Sprint MSA provides that responsibility for certain ****BEGIN HIGHLY CONFIDENTIAL**** "[redacted] ****END HIGHLY CONFIDENTIAL**** is transferred back to Sprint.[9] The contract states: ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

12) ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

13) When Ericsson Inc. had numbering responsibilities in the 2009 Sprint MSA, those responsibilities never included number portability or involved submitting any requests to the NPAC. To the extent that Ericsson Inc. had responsibility for numbering at all, its responsibilities never required it to initiate transactions with the Number Portability Administration Center ("NPAC"), nor did its contractual duties depend on its ability to successfully port a number through the NPAC or to obtain a certain result from the Local Number Portability Administrator.

I declare under penalty of perjury that the foregoing is true and correct.

Executed: August 7, 2014

Travis Baker

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[8] 2013 Sprint MSA, Ex. B at 16.

[9] *Id.* at 3 (Recitals ¶B).

Exhibit B

Eric Burger,
Issues and Analysis of a Provider Transition for the NPAC,
S²ERC TECHNICAL REPORT
(July 22, 2014)

S²ERC Project: Number Database Transition Analysis
Report: Issues and Analysis of a Provider Transition for the NPAC
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Abstract

This paper examines the technology and complexity of the Number Portability Administration Center, and the potential, issues, and risks for transitioning the number portability database to a different vendor.

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Introduction

The Federal Communications Commission (FCC) in 1996 issued an order mandating local number portability.[1] A result of this and subsequent orders was the creation of the North American Number Council (NANC). One of the functions of the NANC is oversight of the North American Portability Management LLC (NAPM), which issues a contract for the Number Portability Administration Center (NPAC). The primary job of the NPAC contractor is to run the number portability database, which maps dialed telephone numbers to local routing numbers (LRNs). Today, Neustar administers the NPAC. iconectiv administers the Local Exchange Routing Guide (LERG), which is the telecom industry's common authoritative database used for the exchange of routing information regarding telephone numbers within the North American numbering plan. The LERG maps regular (non-ported) and routing numbers to carriers and exchanges.

The NAPM has issued an RFP for the NPAC contract.[2] A software engineering question for exploration is what are the costs of and issues with transitioning from one vendor to another in one or more Local Number Portability Administration (LNPA) regions.

There have been some white papers published earlier on such a transition. The Standish Group, a group-reflection consulting firm, published *Big Bang Boom*[3] on their blog. This post looked at a number of heuristics comparing a NPAC transition to other IT projects. Dr. Hal Singer, an independent economist, published a commissioned paper, *Estimating the Costs Associated with a Change in Local Number Portability Administration*[4] and developed a risk model using various metrics to discuss the potential costs of an NPAC transition. Finally, Dr. W. Bruce Allen, a well-respected Professor Emeritus in transportation economics published a commissioned paper, *India's Experience with Mobile Number Portability*,[5] which concluded the Indian number porting process is more complex than the American process.

Not surprisingly, Dr. Allen found the industry in India is experiencing a similar learning process that US-based carriers experienced when local number portability was first introduced to the U.S. In 1997, when wireline number portability was first introduced in the U.S., the industry had to work out trading partner processes. In the early days, it could easily take four business days from the time a customer wanted to port their number to the time the port was executed. This had nothing to do with the performance of the NPAC. Rather, it was about the industry working out how to process ports. One might recall in those days it was a mostly manual process with lots of faxes being exchanged.

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[1] "First Report and Order and Further Notice of Proposed Rulemaking in the Matter of Telephone Number Portability", *FCC Rcd* (Notice) (Washington DC: Federal Communications Commission) **11** (8352), 2 Jul 1996, CC Docket No. 95-116 / RM 8535 (FCC 96-286)

[2] https://www.napmllc.org/pages/npacrfp/npac_rfp.aspx

[3] http://blog.standishgroup.com/BigBangBoom.pdf

[4] http://www.ei.com/downloadables/SingerCarrierTransition.pdf

[5] Available at the Neustar Web site at http://www.neustar.biz/carrier/docs/whitepapers/india_experience_with_mobile_number_portability.pdf

With industry experience from wireline number portability, when wireless number portability was introduced in 2003, the carriers agreed to a trading partner process that resulted in porting intervals of less than 2½ hours. In 2010, the FCC ordered the porting of simple wireline and simple intermodal porting to one business day.[6]

All countries go through this learning process to improve the efficiency of their overall porting process. So, not surprisingly, the carriers in India are still learning the business processes, appropriate for their very different market, required to port numbers.

One piece missing from the analysis mentioned above is the NPAC is a highly specified system.[7] The RFP requires strict adherence to the current system design, operation, and performance. Thus, this paper examines, from a software engineering perspective, the considerations for the possible transition of the Number Portability Administration Center (NPAC) from one data base operator to another, taking into account current conditions and the actual state of the NPAC, the requirements, and the industry.

Software Engineering Concepts

Project Estimation

In an ideal world, one estimates software projects by looking at the specifications and estimating the effort to satisfy the specifications. The correlation of effort to time, cost, and deployment comes from empirical analysis that relates completed projects with similar specifications to estimate the effort required for the new project.

The early days of software engineering used the number of source lines of code (SLOC, or more typically thousands of lines of code, KLOC) as an estimator of effort. Given an estimate of KLOC, one could estimate everything from the amount of time and number of programmers needed down to an estimate of the amount of hardware, cooling, space and power required for deployment.[8]

While the models were intellectually interesting and occasionally worked, they suffered from a few fundamental problems. The biggest one is the difficulty in estimating KLOC. Given KLOC was the driver for all of the models, and the models were often non-linear, underestimating KLOC by a factor of two could easily result in a project that required four times the resources.

Rather than attempting to estimate KLOC, software engineering researchers began to look at the requirements themselves. From the requirements, one can develop a specification of the functions. These are called Function Points.[9] The idea is one can

[6] https://apps fcc.gov/edocs_public/attachmatch/FCC-10-85A1.pdf
[7] https://www.napmllc.org/pages/npacrfp/npacRFP_RefDocs.aspx
[8] See, e.g., Boehm, Barry, **Software Engineering Economics**, Prentice Hall, ISBN 0138221227, 1981.
[9] See, e.g., Albrecht, A.J. and Gaffney, John, *Software Function, Sources Lines of Code, and Development Effort Prediction: A Software Science Validation*, in **IEEE Transactions on Software Engineering**, v. SE-9 n. 6, ISSN 0098-5589, November 1983.

empirically capture the effort required to translate a given number of function points of a given complexity. One result of the early research in function points is that the effort depends on the development environment. For example, McCabe pointed out that COBOL took twice as many lines of code as PL/I to implement the same function. Given that programmers in general deliver a relatively fixed number of lines of code per day,[10] a project in COBOL will take at least twice as long as the same project implemented in PL/I.

All of this project estimation theory makes logical sense and is repeatable. However, they miss a crucial point. They all assume the requirements are fixed well before the project even begins. They assume the customer knows precisely what they want and they articulate those requirements without error or omission.

What this also informs us is that teams with similar capability implementing the same requirements in similar environments should have similar results in terms of implementation effort. More modern theories of software engineering, such as Proxy-Based Estimating, embody this concept.[11]

Project sizing is an important consideration for how to approach project development. We offer project size has two scales. The first scale is for enterprise information technology (IT) projects. These are projects undertaken by enterprises for which developing IT products are not their main line of business. The second scale is for IT product development firms, where IT products are their main line of business. For example, a project with $10,000,000 of labor is a rather large project for enterprise IT, yet represents a modest project for a product development company.

Cyclomatic Complexity

In 1976, Thomas McCabe applied graph theory to the control flow of a program.[12] He came up with a metric, cyclomatic complexity, which measured the complexity of a program by counting the number of branches (think 'if' statements) in the code. Originally, the goal was to calculate the minimum number of test patterns a program needs to exercise every line of code. However, over time he and others demonstrated a correlation between cyclomatic complexity and the number of latent defects in a program. Latent defects are those that are uncovered after the developer thinks the program is debugged and ready for release.[13]

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[10] See Table 4, Programmer Productivity by Language, in Burger, E., **Ubiquitous Reach and Remote Control of Devices**, VDM Verlag, ISBN 978-3-8364-8646-0, 2008.

[11] See, e.g., Humphrey, W., **A Discipline for Software Engineering**, Addison-Wesley Professional, ISBN 0201546108, 1995.

[12] McCabe, T., *A Complexity Measure*, in **IEEE Transactions on Software Engineering**, v. SE-2 n. 4, ISSN 0098-5589, December 1976.

[13] See, e.g., Schneidewind, N. and Hoffmann, H., *An Experiment in Software Error Data Collection and Analysis*, in **IEEE Transactions on Software Engineering**, v. SE-5 n. 3, ISSN 0098-5589, May 1979; Kitchenham, B., Pickard, L. and Linkman, S., *An Evaluation of Some Design Metrics*, in **Software Engineering Journal**, v. 5 n. 1, ISSN 0268-6961, January 1990, pp. 50 – 58; Khoshgoftaar, T.M. et al., *Detection Of Fault-Prone Program Modules In A Very Large Telecommunications System*, in **Proceedings, Sixth International Symposium on Software Reliability Engineering,** 1995, pp. 24 – 33; and Mockus, A., Nagappan, N., and Dinh-Trong, T.,
Test coverage and post-verification defects: A multiple case study, in 3rd International Symposium on

It is possible to estimate cyclomatic complexity of a program from the requirements. For example, let us examine the NPAC SMS Provision Service process described in Figures A-2 and A-3 of the NPAC SMS Functional Requirements Specification.[14] The cyclomatic complexity of this process is nine.[15] What this informs us is a program that implements this process will have a cyclomatic complexity of at least nine. Any less, and the program will not be properly implementing the entire process. It is possible for the program to have a greater complexity, as the program itself may be doing various internal tests. The only other process with a complexity of nine is the Cancellation Process (Figure A-9). For comparison, the Activate and Download Process (Figure A-4) and the Disconnect Process (Figure A-5) have a complexity of four. The Service Repair Process (Figure A-6) has a complexity of three.

Is a complexity of nine a lot? On the one hand, Kitchenham[13] suggests that when a module approaches a complexity of ten, that module should have extra scrutiny, such as more in-depth code reviews and deeper test coverage. We should not be surprised that a system such as the NPAC would have modules that require careful development practices. Otherwise, anyone could implement the database. On the other hand, consider applications that need to implement complex business rules. For example, an airline booking system requires the implementation of rules based on characteristics of the passenger (frequent flyer status, exceptions for celebrities, exceptions for bereavement, etc.), characteristics of the trip to be booked (one-way, single- or multiple-segment, round-trip), length of the trip, special rules like Saturday night stay (which depend on the kind of fare being booked), how far in advance the first leg of the trip is being booked, how far in advance the last leg of the trip is being booked, who is paying for the trip, how they are paying for the trip (cash, debit card, credit card), what jurisdictions apply taxes and fees, calculating those fees, and so on. There are easily thirty 'if' statements for a 'simple' booking. Since the relationship between complexity and latent (undetected) defects is non-linear (i.e., a doubling of complexity results in much more than a doubling of defects), it is no surprise that airline booking systems and air traffic control are the focus of a lot of the intellectual energy in the software engineering field.

As we will see, the NPAC is not a real-time call processing application. Real-time call processing applications tend to have very high complexity, as they often have a lot of parameters to consider in routing a call. Such factors can include time of day, day of week, caller location, load at an enterprise, real-time transit costs, etc. Again, we find switching systems with modules with cyclomatic complexities well in excess of 20.

Empirical Software Engineering and Measurement, ISBN 978-1-4244-4842-5, 15 October 2009, pp. 291-301.

[14] NeuStar, Inc., **Functional Requirements Specification: Number Portability Administration Center (NPAC) Service Management System (SMS)**, Release 3.4.1a, May 18, 2012, pp. A-3 – A-5.

[15] There are 8 'if' statements in the process; the cyclomatic complexity is the number of 'if' statements plus 1. Note that cyclomatic complexity only examines the complexity of a module. This is one of the software engineering reasons for modular programing. If one has a task with a complexity of 16, if one can break that task down unto two tasks of complexity 8, the overall complexity is on the order of 8 (9 actually), not 16. This also means that we do not need to consider the complexity of the carrier systems, as they are external to the NPAC. This is also a logical position, as any change to the NPAC provider that meets the requirements of the NPAC RFP should not have any changes required to the carrier's systems.

This is one of the reasons modern switching systems have hundreds of programmers and hundreds of testers working on the projects.

So, while the NPAC does have very modest complexities, the telecommunications industry deals with systems with considerably more complexity.

Risks from a Software Engineering Perspective

Returning to the project estimation work mentioned above, much of that work was done in the age of the waterfall model of development.[16] The waterfall model was taken from civil engineering, where once one pours the concrete, it is extremely expensive to fix a mistake.

Very quickly, many large projects started to use an iterative model of development. An apocryphal story is the software for NASA's Project Mercury in 1958 was one of the first known uses of the iterative model.[17] The introduction of the iterative model in the scholarly literature was in 1968.[18] The iterative model differs from the waterfall model in that developers work closely with the customers to iterate on the design as the customer learns what their requirements really are. As well, the developers can iterate over the implementation, starting at both a high-level and low-level, testing system functionality as they develop the product.

The importance of the iterative model cannot be underestimated. Once people saw that software was infinitely malleable, customers felt free to change their requirements on a whim. A spectacular example of this was the FAA air traffic control modernization project. The project started in 1981 to modernize the hardware and capabilities of the system. The total project was estimated to cost approximately $2.6B. However, there was a constant set of changes imposed as the project was being developed. By 1999, close to twenty years after the start of the project, only 23% of the project was completed and $2.8B out of $27.5B of project work was abandoned.[19] That represents more money abandoned than the entire project was supposed to cost. Likewise, in 2008, a review of current projects showed a 40% underestimation of cost and planed schedule delays of one to twelve years.[20] This shows an extreme example of the impact of shifting requirements on a project.

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[16] Royce, W., *Managing the Development of Large Software Systems*, in **Proceedings of IEEE WESCON 26**, August 1970, pp. 1-9.

[17] Larman, C. and Basili, V., *Iterative and Incremental Development: A Brief History*, in **IEEE Computer**, v. 36 n. 6, ISSN 0018-9162, June 2003, pp. 47-56.

[18] Zurcher, F. and Randell, B., *Iterative Multi-Level Modeling – A Methodology for Computer System Design*, in **Proceedings IFIP Congress 68**, Vol. 2, August 1968, pp. 867-871.

[19] Dillingham, G., *Air Traffic Control: Observations on FAA's Air Traffic Control Modernization Program*, Statement for the Record by Gerald L. Dillingham, Associate Director, Transportation Issues, Resources, Community and Economic Development Division, Before the **Subcommittee on Aviation, Committee on Commerce, Science and Transportation, U.S. Senate**, 1999, retrieved from http://www.gpo.gov/fdsys/pkg/GAOREPORTS-T-RCED-AIMD-99-137/html/GAOREPORTS-T-RCED-AIMD-99-137.htm.

[20] Federal Aviation Administration, Air Traffic Control Modernization: FAA Faces Challenges In Managing Ongoing Projects, Sustaining Existing Facilities, And Introducing New Capabilities, FAA Report Number AV-2008-049, April 14, 2008, retrieved from http://www.oig.dot.gov/sites/dot/files/pdfdocs/WEB_ATC_Mod_4-14-08_Final.pdf.

Where do these shifting requirements come from? Often, projects start in anticipation of a need. As the project develops, the customer realizes their needs are not quite what they thought they would be. In other examples, the customer does not fully understand their needs. So too, the provider may not fully understand the customer's requirements. This can happen if there are complex business rules or the rules are not fully specified.

Another source of shifting requirements surrounds data. Often, customers will use their own vocabulary when defining a system. A provider may not fully understand the customer's complete definition of a data element. They also may not fully appreciate the relationships between different data elements. Such misunderstandings can result in data inconsistency or even entire rework of a database schema if the relationships are quite wrong.

In summary, when assessing a software engineering project, three key areas to review are the veracity of project estimation processes; complexity based on the requirements; and software engineering risks. Congruent with the Standish Group report, complexity and requirements stability are key factors in the success or failure of a software systems project.

Software Engineering Technical Analysis of a Potential NPAC Transition

Requirements Stability

The NPAC is a product that makes an authoritative copy of the mapping from ported phone numbers to routing numbers. A data base service provider offers the NPAC product. Early in its history, the NPAC had a lot of iterations and incremental upgrades. Figure 1 shows the number of changes implemented by the NPAC administrator.[21]

Note the exponential fall-off in the number of changes. In the early years of the NPAC, the industry was figuring out what it really needed, the business processes were being refined on the fly, and bugs were being worked out. There was a slight uptick in change requests in 2001-2002. Wireless number porting and more especially number pooling drove these changes. There were all of seven open requests made in the past five years. Moreover, many of these requests were evaluated by the industry but there is no published implementation timeline.

The change request curve informs us the industry considers the NPAC to be an incredibly stable product. Negotiation, learning, and product iteration on the NPAC occurred in the first five years of the product launch.

[21] Results of data analysis performed at the S^{2}ERC from data available at https://www npac.com/lnpa-working-group/nanc-change-orders, retrieved May 2, 2014.

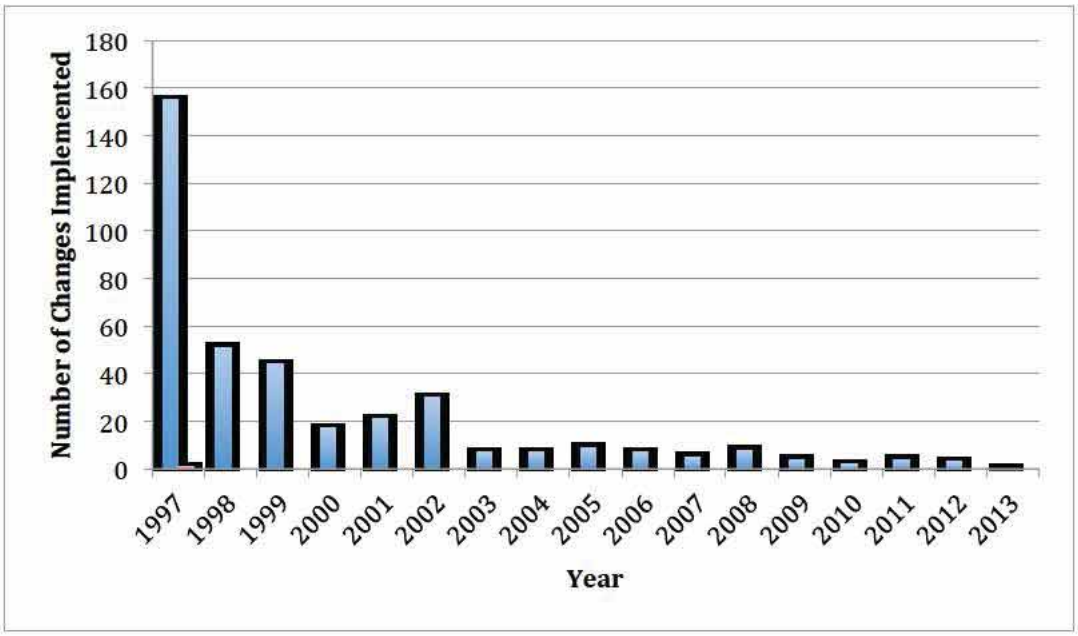

Figure 1 - Number of Change Orders Implemented per Year

While the NPAC is a product from the perspective of the data base operator, the users of the NPAC need to connect their enterprise IT systems to it. Thus, any migration of the NPAC would result in an enterprise IT project. We will explore this in further detail below.

The data base operator of the NPAC, in its role as the Change Management Administrator (NPAC CMA),[22] has fully specified the features, functionality, external interfaces business rules, database schema, and data dictionary of the NPAC.[2] Given there are no changes requested in the NPAC RFI, almost no change requests in the past five years, the data base has been in stable operation for over ten years, and the NPAC is extremely well documented, this is a straightforward, low risk technology migration.

One cannot over emphasize the importance of a fully specified and operational data model. For example, the Singer piece pointed out the costs in the airline industry of taking two systems with almost the same data model, but with different business rules and different customer applications, and attempting to merge all at once. As other articles illustrate, changing requirements on the fly that would negatively affect your most vocal customers, implementing a new system that more than half the agents never used before, migrating to a new computing paradigm, and doing it all on the same day, was a recipe for disaster.[23,24,25]

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[22] Neustar became the Change Management Administrator in 2002. See the *2002-05-15/16 LNPA WG Meeting Minutes*, http://www npac.com/content/download/4764/65111/05-02lnpawgminutes-final.doc

[23] Elliot, C., *Could United Airlines' chaotic computer "cutover" have been avoided?*, blog post April 29, 2012, http://elliott.org/blog/could-united-airlines-chaotic-computer-cutover-have-been-avoided/, retrieved May 5, 2014.

[24] -, *United Airlines Computer Systems Failure: Continental Merger Related?*, June 18, 2011, http://www.ibtimes.com/united-airlines-computer-systems-failure-continental-merger-related-645025,

Such a rule of thumb is appropriate for mergers of disparate systems. It applies somewhat when merging similar, but not identical, systems.

In the case of the NPAC database, the NPAC CMA has fully specified the system. Unlike some spectacular failures in the airline industry, where two similar systems were being merged, a change in NPAC operators:

- Adds no new functionality
- Performs no merging of disparate databases (in fact, there is no merging whatsoever); it is strictly a data migration
- Has specifications that have not materially changed and have been *running* by industry *for over five years*[26]
    - Understood and stable business rules
    - Understood and stable interfaces
    - Understood and stable data definitions
    - Understood and stable data relationships

The NPAC CMA is obligated to document the system in enough detail so that anyone current in the art is able to build or operate the system. The NPAC CMA has done an exemplary job of providing and publishing this documentation. Notwithstanding the excellent documentation provided by the current NPAC CMA, it is possible that entities unfamiliar with NPAC technology might miss subtleties in definitions or nuances in business practices necessary to deploy the NPAC service.. A provider with in depth knowledge of the number portability environment will substantially reduce the risk to the industry of a new NPAC service provider. For example, as noted above, the NPAC implements the server that embodies the business rules for service providers to port phone numbers. There are other vendors in the telecommunications industry, for example those that provide billing systems, operations support systems, and diagnostic systems that they implement for their clients that embodies the business rules for service providers to port phone numbers. Any vendor interfacing to or from the NPAC would be in a good position to understand and have practical experience with the real business rules and processes, even in the unlikely event the current NPAC CMA has failed to properly document how the system operates in reality.

International Business Times, retrieved May 5, 2014.

[25] Microsoft Corporation, *United Airlines Boosts IT Efficiency*, *Business Resiliency with Private Cloud Solution*, Microsoft Windows Server Case Study, December 16, 2013, http://www.microsoft.com/casestudies/Windows-Server-2012-R2/United-Airlines/United-Airlines-Boosts-IT-Efficiency-Business-Resiliency-with-Private-Cloud-Solution/710000003644, retrieved May 5, 2014.

[26] The major updates in the past five years have been one-day porting (NANC change orders 440 and 441), which was implemented almost five years ago in 2009 (NPAC release 3.3.4a) and XML (NANC change order 372), implemented in 2013 (NPAC release 3.4.6a).

Performance

Another area where one may find issues in a transition is with respect to performance. A system may have identical interfaces and operate identically, but when the system comes under load it may have radically different performance characteristics. These issues are rarely documented. However, in the case of the NPAC, the system is fully documented and is well understood by the carriers (customers), gateway vendors (as it is part of the availability and performance calculation), and database vendor. One thing that jumps out is the availability and performance requirements on the NPAC are not extreme by today's standards.

By design, carriers do not use the NPAC as a real-time database. The NPAC is not in the real-time call routing path. Rather, the NPAC pushes number assignment changes to the carriers' real-time databases. This fact is reflected in the RFP's availability requirements that are less stringent than those of real-time call routing systems. For example, unlike the PSTN, scheduled maintenance does not count against uptime calculations. Moreover, even if the scheduled maintenance impacts availability, so long as even just a single carrier gets updates, the system is booked as 100% available (see SLR1).[27] The requirements do specify a reporting requirement if any single customer loses access to the NPAC. However, this requirement allows the NPAC to be unavailable for up to ten minutes before it is considered to be an outage (see SLR3).[28] To put this into perspective, this means the starting point for availability calculations is well below the typical five-nines, 99.999% uptime required for real-time routing systems. The wording of the RFP means that delivering 99.995% uptime counts as 100%. This is fine for a non-real time database like the NPAC. By comparison, it would not be fine for a real-time switching system.

It is true that the NPAC database operator maintains detailed specifications in its Change Management Administrator role; the NPAC has incredibly stable requirements; the NPAC has well-known and well-documented business processes; and the industry is, for the most part, eager to put the NPAC out for competitive bidding. However, even with all of these things going for a possible database transition to a different vendor, there are four risk areas that we must consider.

Transition Risks and Cost Bounds

Rather than discuss generic risks that may or may not occur in a given project, let us examine the risks, given the specifications, industry alignment, and industry players, present in an NPAC database operator migration. The risks of concern are:

- specification risk,
- database implementation risk,
- carrier configuration error, and
- carrier implementation error.

[27] NAPM, *2015 LNPA Vendor Qualification 2 4 13*, Section 9.4.
[28] *ibid.* Section 9.6.

Specification Risk

As pointed out above, the current NPAC database operator has done an excellent job fulfilling its role as Change Management Administrator to fully document the system in all of its aspects, including data element definitions, database schemas, business processes, and interfaces. A vendor with experience implementing and delivering on the NPAC business processes further reduces risk, as opposed to a vendor that is new to the NPAC ecosystem. Therefore, a new operator will have more information available than is available for a typical vendor change.

However, it is possible for a data element to be misidentified, there to be a latent ambiguity in a relationship, or (although highly unlikely) an out-of-date business process definition. If the new operator is steeped in the operation of the NPAC, then this is a small risk, as they will have inside knowledge of how the system operates in practice even if the documentation is not accurate.

Implementation Risk

Another risk comes from the implementation of the business rules. While the database itself is fairly simple compared to other business databases, the business rules are somewhat complicated. As discussed above in the section on cyclomatic complexity, the business rules for porting process have a cyclomatic complexity metric of up to nine. Others may go as high as fourteen. This is at the high-end of single-module complexity, but not excessive. Beyond this level the likelihood of latent defects rises significantly. If a new NPAC operator were to write all-new code from scratch, there is a distinct likelihood of latent errors to be found post-release.

Because of the potential for latent errors, testing of any new system will be critical. Besides vendor testing, the carriers will need to test the interfaces and database behavior. We would expect such testing to take a minimum of three months. Realistically, we expect such testing to take at least six months of calendar time.

The good news is we would expect defects to be primarily in implementation errors and not from specification errors. Recall Figure 1, where most of the business rules were worked out in the first five years of the NPAC, over ten years ago.

The largest risk of a transition falls on the carriers. The good news is nothing in the carriers' enterprise systems should change except for configuring the systems to point to the different database vendor. Regardless of experience, errors do occur. For example, it is possible to get a simple thing, such as changing an IP address in a file, incorrect

Executing the transition will force carriers to execute enterprise IT projects. This means it will not be free. Carriers will need to devise a plan for executing the reconfiguration, operate in a model that may require access to multiple providers or in an incremental fashion for a short duration, and test both the new operator's NPAC implementation as well as dry run the cutover a number of times. Projects of this scale run from $250,000 to $1,500,000 per carrier, depending on the complexity of the carrier's installed system. Given the published estimate of 80 unique systems de-

ployed, and a higher estimate of $2,000,000 per system,[29] the most this will cost the industry is a one-time cost on the order of $160M.

While the $160M number gives us an upper bound, let us look at closer comparable projects and their timelines. Recall the $160M figure looks at general IT projects across all enterprises. This means we are counting project expenses from sectors like sanitation companies, dollar-store retailers, and ice cream franchises. Telecommunications providers are some of the most advanced information technology and software engineering experts on the planet. It is no wonder that many of the references in the technical literature on highly reliable systems are from telecommunications network equipment vendors and service providers.

A good place to find comparable projects would be historical NPAC transitions. For this study, we looked for a transition that included some of the largest *changes* to the NPAC. We settled on the Number Pooling NPAC release.[30] This release not only introduced new fields, but also it introduced new business rules. This means that simultaneous with the NPAC going through a major change, the NPAC gateway vendors, the operating system support (OSS) vendors, the billing system support (BSS) vendors, and the service providers all had to make significant changes to their IT infrastructure and back office procedures. This had a natural ripple effect on the development of the test plan for the release. Since this was not just a simple upgrade of technology, the users of the NPAC had to test out all of the existing NPAC functionality, all of their new OSS and BSS systems' functionality, and all of their internal procedures. In other words, it provides a nice upper bound on any NPAC test plan, as a maximal amount of change needed testing, as well as a large amount of new test development to do that testing.

If we look at the project plan,[31] we see that this massive change to the database, data model, and business rules, none of which, by the way, are a part of the transition under consideration here, required two years of time, of which *six months was for testing*. For a transition of NPAC operators, the development time is not part of the industry project time.

This release was rolled out on a per-region basis. That is, no Big Bang or all-at-once, but trialing different regions at different times.

Table 1 shows the number of service providers that had to perform integration and testing that resulted in nationwide acceptance. Note however this does not mean there were 139 service providers that required projects to upgrade their NPAC interface. There were but 36 distinct carriers that needed to test the transition.

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[29] Standish *ibid*, "…to migrate a minimum of 80 unique systems… to average $2 million per project", p. 4

[30] NANC, http://www npac.com/media/npac/files/public/public-archives/nanc-release-3.0/2001.

[31] Neustar, *Release 3.0 Project Plan*, March 2001, http://www.npac.com/content/download/8035/84383/rel_3.0_ppword_ver16.doc

Table 1 - Number of Service Providers per Region

Region	Number of Service Providers
1	19
2	23
3	20
4	20
5	19
6	20
7	18

From the project plan, we see the typical carrier expended the following effort to test this very substantial release:

- 74 days of testing for deployment in the carrier's first region
- Approximately 14 days of testing for deployment in the carrier's second region
- 7 days for deployment in the carrier's third and subsequent regions

Recall that not all carriers operate in all seven regions and that some carriers forecast lower efforts depending on region. These figures give us an upper bound. So, a carrier operating in all seven regions could spend up to 123 days testing on the release. If we assume a carrier put:

- Six full-time equivalent engineers on the project
- Have a burdened average cost of $200,000/FTE/year, with a 250 workday year
- The per-carrier cost would top out at a little under $600,000.

With 36 carriers doing the testing, the cost to industry would be a little more than $21MM. Under the same assumptions, except using the Standish Group's figure of 80 carriers conducting testing, the industry figure would total $48MM.

Therefore, a realistic cost estimate to industry for the transition would be somewhere between $21MM and $160MM.

Carrier Implementation and Configuration Error Model

Even with a maximum one-time cost of $160M, there may be latent defects post-deployment. This section will examine the root causes of these defects and their impact on the industry. Root cause analysis is superior to a blind model that supposes some percentage of a database will be corrupted on transfer. That model may be appropriate for 1950's technology when bits would routinely randomly flip or if humans were manually typing in the data elements to copy the database. However, over the past fifty years we have come a long way with error-correcting codes and integrity checks that such a model is irrelevant. Likewise, given the level of detailed

specifications provided by the current NPAC CMA, the likelihood of misinterpretation of database fields or database structure is near zero, especially if the new NPAC operator also had operational experience with the NPAC database, NPAC business processes, and NPAC transaction flows. As an example of this, consider Alcatel-Lucent's white paper on the importance of having clean databases when transitioning to new technology.[32] The point of the Alcatel-Lucent white paper is to highlight what happens when one transitions from one database schema and data model to another. In the case of the NPAC, the database schema and data model remains constant. That is, there are no conversion errors because there is no conversion.

If there are data quality errors in the NPAC, it is possible these errors will be exposed sooner during a transition than if there was no transition. For example, if a record were corrupted so that it was invalid, but that record was rarely accessed, the error would not become apparent until the carrier retrieved that record. However, from an impact perspective, that is identical to the discovery of the current operator's error during transition. I.e., it is not a transition cost, but a regular operating cost.

Thus, the expectation is if there is a database error resulting from a misinterpretation of the specifications, it will be a systemic error that will be uncovered during testing. On the other hand, since the data models are identical, bad data in the current database will result in the same bad data in the new database, and as such the new NPAC should have the identical behavior as the old NPAC.

Summary

Technology upgrades and refreshes are not without risk. There have been spectacular failures, such as the United-Continental merger, where the combined airline attempted to merge disparate systems while simultaneously changing the business rules (requirements) a number of times during the system merge; the FAA ATC modernization project, which had years of moving requirements resulting in delays of over decades; and carrier technology transitions from legacy PSTN networks to IP networks as described by Alcatel-Lucent.

On the other hand, there have been literally dozens of carrier mergers in the past decades, of which few if any have made the news because of database migration errors.

Examples of telecommunications mergers include Verizon buying West Virginia Wireless in 2006, Unicel in 2007, Ramcell in 2007, SureWest Communications in 2008, and Alltel in 2009.

Larger mergers include AT&T Mobility being formed from Cingular Wireless and their acquisition of AT&T Wireless in 2004. AT&T further acquired Dobson Communications in 2007, Centennial Communications in 2008, and NextWave in 2013.

[32] Connelly, T., McKnight, J., and Mongeau, D., *Solving the NGN Data Migration Challenge*, Alcatel-Lucent white paper, 2007, retrieved from http://www.informationweek.com/whitepaper/download/showPDF?articleID=191706822.

All of these mergers, which included transitions on the order of the air transport carrier mergers held out as examples of what can go wrong, succeeded. More importantly, these transactions did not have the benefit a NPAC transition would have. Like the airline mergers, these carriers had similar, yet not identical databases. In the case of the NPAC transition, we would have identical databases, and thus even less risk than the successful communications mergers mentioned above.

Suggestions for an NPAC Transition

We would not suggest carriers consider a change in NPAC operators as an opportunity to make major changes to their existing systems, as that would invite the troubles that plagued United-Continental. Recall, United kept changing the business rules during their transition. If a carrier did try to make systems changes beyond reconfiguring them to use a different NPAC operator, the risks for that operator become high.

Carriers may wish to preemptively review and validate their data in the NPAC using techniques such as proposed by Alcatel-Lucent.[32] While not necessary, a transition might expose existing data errors. By scrubbing the data beforehand, such errors will not be mistaken as errors caused by a new NPAC operator. Moreover, if the current NPAC operator has introduced errors in the NPAC database, a preemptive cleansing of the database will reduce operational issues post transition.

Conclusions

In short, a NPAC transition to a different vendor has the following issues:

- Modest complexity requiring careful development
- Modest complexity requiring service providers to test implementations, as one can expect a modest level of latent defects

Conversely, a NPAC transition, in this case, is relatively low risk:

- The requirements are very well known, agreed to by industry, and are extremely stable (unlike the recent airline mergers)
- The current NPAC administrator has provided comprehensive implementation documentation, design documentation, test plans, etc.
- The data and database transitions exactly; there are no merging or translations required (the most common source for trouble)
- With no major features inserted, the existing comprehensive test plans can be used with minimal development.
- Presuming an alternate vendor has operational experience interfacing with the NPAC, such an alternate vendor will also know any undocumented features of the NPAC or what current implementation errors would need to be replicated to ensure no changes to the industry's OSS/BSS and network infrastructure.

Exhibit C

Report of Deloitte Consulting, LLP
(Aug. 8, 2014)

Deloitte.

Deloitte Consulting LLP ("Deloitte Consulting") has been engaged by legal counsel to Telcordia, Inc., dba iconectiv ("iconectiv") to assess specific portions of iconectiv's response ("Response") to the Request for Proposal ("RFP") issued by the North American Portability Management LLC ("NAPM") for the services of a Number Portability Administration Center. We understand that our review may be filed in the FCC proceeding related to the selection of a vendor to serve as the Local Number Portability Administrator (FCC Docket 09-109, *Et Al*.). Deloitte Consulting is not expressing an opinion on the ability of any party to perform services in connection with the Number Portability Administration Center and makes no representation or warranty, express or implied, with respect to the ability of any party to perform such services.

Assessment of the iconectiv Number Portability Administration Center Request for Proposal Response

As a professional services provider to the Federal government, 46 of the 50 states, Puerto Rico, the District of Columbia, and hundreds of different commercial entities, Deloitte Consulting has responded to thousands of Requests for Proposal ("RFP" or "RFPs"). In our view, the level of detail contained in an RFP should be sufficient for the responding party to understand the needs of the solicitor and provide sufficient guidance for bidders to provide relevant information. Further, based on our experience, when an RFP allows for multiple approaches to addressing the needs of the solicitor, it is not uncommon for these documents to provide high-level business objectives.

To that end, in our view, the RFP provides sufficient information for respondents to provide information. With respect to transition planning guidance in the NAPM RFP, it provides, in part, that

> [t]his transition plan must include both the anticipated transition period and a list of transition activities from the incumbent to the new LNPA. Respondent shall provide an implementation approach (tasks and milestones), staff management approach (staff categories and hours per task), risk management approach, change control approach, and quality assurance approach to develop, implement and transition to the new NPAC/SMS without disrupting current or continuing NPAC operations within the published timeframe.

Deloitte Consulting's assessment of iconectiv's Response focused principally on Section 12.3. Deloitte Consulting's view is that iconectiv's response addresses the core elements of transition planning, beginning with the initial scoping and requirements gathering, and ending with a complete cutover and post go-live model. It appears that each subordinate phase addresses the major features of a large scale migration, and takes into account the particular nature of this migration.

The NPAC transition itself is based on standard capabilities with pre-defined and operationally proven interfaces. We note that iconectiv's Response contemplates design and build cycles for these interfaces, allowing for developer discovery and "shake out" of interactions that are potentially unknown to new database and process administrators. This is particularly important when considering the data conversions that will take place, and the possibility that data is not truly understood until extracts are pulled and processed in development environments.

The quality assurance phase contemplated in iconectiv's Response allows for ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL**** of additional testing once design and build is complete, which is consistent with industry standards for large scale integrations in the BSS / OSS space and is similar to large scale IT transition projects that Deloitte Consulting has previously undertaken. Moreover, iconectiv proposes additional time in the schedule for carrier interoperability tests. This schedule aligns with the classic build/unit/integrate/accept/testing cascade necessary for a migration of this size and should allow for at least eight different types of testing before ultimate launch.

Finally, iconectiv's Response provides sufficient coverage of the governing mechanisms for the proposed program. Methods for resource management, scope/change control, and risk escalations are detailed. ****BEGIN HIGHLY CONFIDENTIAL**** [redacted] ****END HIGHLY CONFIDENTIAL****

In aggregate, Deloitte Consulting views the iconectiv transition planning description to be of sufficient breadth and depth as a response to a Request for Proposal, with further detail to come in subsequent discussions as is common practice.

Consideration of the June 30, 2015 Launch Date

Deloitte Consulting is unable to comment on the ability of iconectiv to reach the June 30, 2015 launch date, as stated within the RFP response, as there is currently no known start date for the project. At the time of RFP submission, it was assumed that vendor selection would occur 21 months before the N-1 go-live. Currently, only 10 months remain until the N-1 June 2015 go-live target. There are potential opportunities to compress the iconectiv schedule, including (i) starting design and build on existing specifications in advance, (ii) compressing iconectiv's internal QA cycle, and (iii) enacting parallel testing for carrier acceptance. The suitability of these options depends on joint discussions between iconectiv and carriers, focused specifically on risk profiles and trade-offs amongst each. Moreover, any changes in the schedule would require full awareness of the use cases and scenarios that iconectiv and carriers ultimately may want to test for interoperability, as test requirements will drive the critical path. As it stands, while schedule compression may be achievable, it is likely not achievable without incurring additional risks that may require further consideration and mitigation.

Comparison to Comparable Large Scale Migrations

Large scale IT projects come in many flavors. Some projects have defined scope and detailed requirements established in advance. Other projects are "greenfield" implementations that require definition of business rules and further defining of user requirements. Still others are the by-product of integrations of disparate systems that were designed to support different business needs. Deloitte Consulting has experience with IT implementations, system migrations and system enhancements with numerous clients across multiple industries, and our experience suggests that the NPAC migration, if properly handled, is achievable without undue risk. Deloitte Consulting is versed in both wireline and wireless carrier migrations, having worked with dozens of carriers over the last decade across all phases of the software development life cycle. For instance, Deloitte Consulting has assisted telecommunications providers with the migration of their customer care and billing platforms, successfully converting millions of

subscriber records into a new platform and helping the providers recognize significant cost savings. Further, Deloitte Consulting has assisted telecommunications providers with system design and integration to support local number portability.

Based on our understanding of the requirements of the RFP as well as our experience with IT implementations, we believe that the scope and requirements are well defined and documented. There appears to be adequate documentation available to more easily replicate the database integration points, as opposed to a "greenfield" deployment. Further, the business rules appear to be well-defined. Accordingly, Deloitte Consulting does not believe that the proposed project has the same risk profile as a "greenfield" implementation or an integration of multiple different platforms into a single IT platform.

Deloitte Consulting understands that a failed implementation of a new LNP administrator would have far-reaching consequences to the industry. However, given our experience in large-scale IT projects, Deloitte Consulting believes that implementation and transition risk can be significantly mitigated through proper planning, executive sponsorship, quality assurance testing, and project management. Deloitte Consulting's approach to IT project management is consistent with the approach outlined by iconectiv in its RFP response, and with proper execution and coordination, Deloitte Consulting does not believe that the risk of transition failure for the NPAC is more significant than the risk of other comparable and notably successful system migrations.

Deloitte Consulting LLP

Arlington, VA
August 8, 2014